IRAN, WATER & POWER
Investment and Cooperation Opportunities
In The Name of God
Islamic Republic of Iran
Ministry of Energy
<table>
<thead>
<tr>
<th>Category</th>
<th>Page</th>
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<tr>
<td>Water &amp; Wastewater Projects</td>
<td>60</td>
</tr>
<tr>
<td>Power Projects</td>
<td>80</td>
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Message of the Minister of Energy

Hamid Chitchian/Minister of Energy

Message of the Minister of Energy
The Government of the Islamic Republic of Iran has decided to promote a sustainable development plan and green economic growth within its 6th National Development Plan which starts in 2016. The planned growth rate during the next five years is 6% plus an additional 2% by means of increasing productivity. It is expected that Iran will witness one of the highest growth rates in the NENA region for the foreseeable future.

Ministry of Energy, which is in charge of providing energy, water and wastewater services to a market of more than 80 million users, plays a pivotal role in realization of the objectives of our Development Plan. Moreover, the Ministry is a key energy provider to the neighboring countries in the region with a potential market size of over 300 million people.

As a strategic approach, Ministry of Energy has decided to use international finance, investment and incentives to aggressively expand and renew its infrastructure in all three sectors of power, water and wastewater in achieving its goals of providing high quality and reliable services consistent with sustainable and
responsible use of our natural resources. Our plan, in particular will focus on water and energy and on reducing our water and carbon foot prints in accordance with our national and international obligations, while creating attractive added values for the investors. The development plan alongside the geostrategic location of Iran, the new economic realities and drivers in Iran and in the region and the disparity between the Iranian GDP (Exchange Rate) and GDP(PPP) as a country classified in the upper middle income category make Iran a prime candidate for international investment. It is noteworthy to know, that despite many years of the now lifted economic sanctions, Iran has an exceptional record of zero defaulted foreign loan payment and the economic perspective of the country is even getting better by the day. This booklet presents the financing and investment opportunities in the Iranian water, wastewater, power, renewable energy and energy efficiency projects. Ministry of energy, with proper planning and efficient management, will ensure that the Iranian water, wastewater and energy sectors, together, will provide a very attractive, reliable and competitive market for international investors, financiers and financiers. As the minister, I would like to invite you to join us in our new infrastructure renovation and development drive.
Introduction

The meteorological conditions of Iran with irregular distribution of water resources have long made a key role in the development of the country. In other words, any production activities fail to achieve its goals if qualified water resources are not supplied sufficiently and in timely fashion, hence the overcoming of this challenge has always been a concern to the central government and policy makers. Apparently, water resources management plays a particular role in the country’s planning disciplines with the aim of providing regular water services and required investments so that the cited services could be placed in its appropriate direction.

As the country’s planning discipline has started moving in the direction
of modifying its economic structure and as water services demand has expanded due to the increase in population, taking benefit of complementary financial resources in the frame of finance facilities and international credit lines for covering the required financial resources for the plans under construction are necessary due to severe limitations in government’s public funds.

By using different credential facilities and methods in the water section as well as an optimum use of limited governmental financial resources, the construction phase of the water projects are expected to be completed on time, providing the ground for appropriate operation.

This collection (booklet) includes water supply plans (dams), irrigation and drainage networks as well as hydropower plants which have the potentiality to receive foreign financial resources.
List of proposed plans in the water sector for receiving foreign investments and facilities

Table No.1- Water Supply Plans (Dams)

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of the plan</th>
<th>Executive Body</th>
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<tbody>
<tr>
<td>1</td>
<td>Daiaki Dam</td>
<td>Boushehr Regional Water Authority</td>
</tr>
<tr>
<td>2</td>
<td>Tang-e Sorkh Dam</td>
<td>Kohkiloalash &amp; Bostrahmad Regional Water Authority</td>
</tr>
<tr>
<td>3</td>
<td>Dasht-e Polang Dam</td>
<td>Boushehr Regional Water Authority</td>
</tr>
<tr>
<td>4</td>
<td>Haraz Dam</td>
<td>Mazandaran Regional Water Authority</td>
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<tr>
<td>5</td>
<td>Baghan Dam</td>
<td>Boushehr Regional Water Authority</td>
</tr>
<tr>
<td>6</td>
<td>Balakhtan Dam</td>
<td>Qazvin Regional Water Authority</td>
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<tr>
<td>7</td>
<td>Transferring Water to the Central Plateau (Beheshtabad Plan)</td>
<td>Iran Water and Power Resources Development Co.</td>
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<td>8</td>
<td>Lasalik Dam</td>
<td>Gilan Regional Water Authority</td>
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**First Priority Sum**

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<tr>
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<tbody>
<tr>
<td>9</td>
<td>Pioroud Dam</td>
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</tr>
<tr>
<td>10</td>
<td>Aghbolagh Dam</td>
<td>Chaharmahal &amp; Bakhtiari Regional Water Authority</td>
</tr>
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<td>11</td>
<td>Mohammadabad Dam</td>
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**Second Priority Sum**

<table>
<thead>
<tr>
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**Total Sum**
### USD Rate: 29740 Rials

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Trinity</th>
<th>Regulated Water Volume (mm)</th>
<th>Reservoir Volume (mm)</th>
<th>Dam's Height (m)</th>
<th>Estimated Investment Cost (Million USD)</th>
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**Total**

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</table>
List of proposed plans in the water sector for receiving foreign investments and facilities

Table No. 2: Irrigation and Drainage Networks

<table>
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<tr>
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<th>Name of the plan</th>
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<tr>
<td>12</td>
<td>Big Karon Irrigation and Drainage Network, Shoalblah</td>
<td>Khuzestan Water and Power Org.</td>
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<tr>
<td>13</td>
<td>Jareh Irrigation and Drainage Network</td>
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<td>Khorramshahr Irrigation and Drainage Network</td>
<td>Khuzestan Water and Power Org.</td>
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<td>Ayaqchmoosh Irrigation and Drainage Network</td>
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<td>17</td>
<td>Gharanghoo (Shahand) Irrigation and Drainage Network</td>
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<td>18</td>
<td>Givi Irrigation and Drainage Network</td>
<td>Ardabil Regional Water Authority</td>
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<td>Sabaalan Irrigation and Drainage Network</td>
<td>Ardabil Regional Water Authority</td>
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<td>Zirdan Irrigation and Drainage Network</td>
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<td>23</td>
<td>Studying and Executing Golestan Priority Lands Drainage</td>
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<td>Polroud Irrigation and Drainage Network</td>
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<td>25</td>
<td>Kamandan Irrigation and Drainage Network</td>
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<td>sefidrood &amp; fooyanan Irrigation and Drainage Network</td>
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First Priority Sum

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<td>Hendijan Irrigation and Drainage Network</td>
<td>Khuzestan Water and Power Org.</td>
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<td>28</td>
<td>Azadegan Plain Irrigation and Drainage Network</td>
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<td>Zarenehroud Irrigation and Drainage Network</td>
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<td>Aghchay Irrigation and Drainage Network</td>
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<td>Sizazakh Irrigation and Drainage Network</td>
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Second Priority Sum

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### USD Rate: 29740 Rials

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<td><strong>55</strong></td>
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</table>
List of proposed plans in the water sector for receiving foreign investments and facilities

### Table 3. Hydropower Plants

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>34</td>
<td>Kheran III Hydropower Plant</td>
<td>Iran Water and Power Resources Development Co.</td>
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<td>35</td>
<td>Developing Gotvand Hydropower Plant</td>
<td>Iran Water and Power Resources Development Co.</td>
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<td>36</td>
<td>Azad Pumping Storage Plant</td>
<td>Iran Water and Power Resources Development Co.</td>
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<tr>
<td>37</td>
<td>Bakhtari Hydropower Plant</td>
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<td>38</td>
<td>Semnan Pumping Storage Plant</td>
<td>Iran Water and Power Resources Development Co.</td>
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<td>39</td>
<td>Lorestan Roudsar Pumping Storage Plant</td>
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**First Priority Sum**

<table>
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<tbody>
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<td>40</td>
<td>Ardal Hydropower Plant</td>
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<td>41</td>
<td>Namarestagh Hydropower Plant</td>
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**Second Priority Sum**

**Total Sum**

**Total Sum of all Sections**
**USD Rate: 29740 Rials**

<table>
<thead>
<tr>
<th>Objectives</th>
<th>Priority</th>
<th>Nominal Capacity mw</th>
<th>Energy GWH</th>
<th>Estimated Investment Cost (Million USD)</th>
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<tbody>
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<tr>
<td></td>
<td>1000</td>
<td>1400</td>
<td>750.0</td>
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<td>Electricity Generation, Surface Water Control, Transferring Water</td>
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1. Dalaki Dam

<table>
<thead>
<tr>
<th>Implementing body (Executive Org.)</th>
<th>Boushehr Regional Water Authority</th>
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<tbody>
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<td>40201726</td>
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<tr>
<td>Province</td>
<td>Boushehr</td>
</tr>
<tr>
<td>Dam’s Site</td>
<td>Dashkeslan, 25 kilometers from the northeast of Dalaki City</td>
</tr>
<tr>
<td>Objective/s</td>
<td>Agriculture, Electricity Production, Flood Control, Environment</td>
</tr>
<tr>
<td>Name of the River</td>
<td>Dalaki</td>
</tr>
<tr>
<td>Mean annual discharge (MCM)</td>
<td>578</td>
</tr>
<tr>
<td>Type of Dam</td>
<td>Earth Core Rock Fill Dams</td>
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<tr>
<td>Height from Foundation (M)</td>
<td>120</td>
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<tr>
<td>Reservoir Volume in Normal Elevations (MCM)</td>
<td>270</td>
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<td>Annual Regulated Water (MCM)</td>
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<td>Nominal Capacity of Hydropower Plant</td>
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</tr>
<tr>
<td>Stage/Phase</td>
<td>Executive Phase (Water Diversion System)</td>
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<tr>
<td>Progress (%)</td>
<td>.52</td>
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<tr>
<td>Estimated Investment Cost (Million USD)</td>
<td>108</td>
</tr>
</tbody>
</table>
2. Yasooj Dam (Tang-e Sorkh Bashar Dam)

<table>
<thead>
<tr>
<th>Implementing body (Executive Org.)</th>
<th>Kohkeelooieh &amp; Boeirohmad Regional Water Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan's Code</td>
<td>40201727</td>
</tr>
<tr>
<td>Province</td>
<td>Kohkeelooieh &amp; Boeirohmad</td>
</tr>
<tr>
<td>Dam's Site</td>
<td>35 kilometers southeast of Yasooj, Hassanaabad Village</td>
</tr>
<tr>
<td>Objective/s</td>
<td>Agriculture, Potable, Industry, Environment and Inte basin</td>
</tr>
<tr>
<td>Name of the River</td>
<td>Bashar</td>
</tr>
<tr>
<td>Mean annual discharge (MCM)</td>
<td>293.4</td>
</tr>
<tr>
<td>Type of Dam</td>
<td>Clay core earth Dam</td>
</tr>
<tr>
<td>Height from Foundation (M)</td>
<td>49.5</td>
</tr>
<tr>
<td>Reservoir Volume in Normal Elevations (MCM)</td>
<td>71.12</td>
</tr>
<tr>
<td>Annual Regulated Water (MCM)</td>
<td>174</td>
</tr>
<tr>
<td>Nominal Capacity of Hydropower Plant</td>
<td>Executive (Water Diversion System)</td>
</tr>
<tr>
<td>Stage/Phase</td>
<td>1.08</td>
</tr>
<tr>
<td>Progress (%)</td>
<td>71</td>
</tr>
<tr>
<td>Estimated Investment Cost (Million USD)</td>
<td>108</td>
</tr>
</tbody>
</table>
3. Dasht Palang Dam

<table>
<thead>
<tr>
<th>Implementing body (Executive Org.)</th>
<th>Boushehr Regional Water Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan's Code</td>
<td>40201708</td>
</tr>
<tr>
<td>Province</td>
<td>Boushehr</td>
</tr>
<tr>
<td>Dam's Site</td>
<td>Khormooj</td>
</tr>
<tr>
<td>Objective/s</td>
<td>Agriculture, Potable, Industry, Flood Control and Environment</td>
</tr>
<tr>
<td>Name of the River</td>
<td>Palang Plain</td>
</tr>
<tr>
<td>Mean annual discharge (MCM)</td>
<td>72.8</td>
</tr>
<tr>
<td>Type of Dam</td>
<td>Roller Compacted Concrete Dam</td>
</tr>
<tr>
<td>Height from Foundation (M)</td>
<td>56</td>
</tr>
<tr>
<td>Reservoir Volume in Normal Elevations (MCM)</td>
<td>145</td>
</tr>
<tr>
<td>Annual Regulated Water (MCM)</td>
<td>46.7</td>
</tr>
<tr>
<td>Nominal Capacity of Hydropower Plant</td>
<td>Executive (Water Diversion System)</td>
</tr>
<tr>
<td>Stage/Phase</td>
<td>.43</td>
</tr>
<tr>
<td>Progress (%)</td>
<td>52</td>
</tr>
<tr>
<td>Estimated Investment Cost (Million USD)</td>
<td>108</td>
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</tbody>
</table>
## 4. Haraz Dam

<table>
<thead>
<tr>
<th>Implementing body (Executive Org.)</th>
<th>Mazandaran Regional Water Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan's Code</td>
<td>40201058</td>
</tr>
<tr>
<td>Province</td>
<td>Mazandaran</td>
</tr>
<tr>
<td>Dam's Site</td>
<td>20 kilometer South of Amol</td>
</tr>
<tr>
<td>Objective/s</td>
<td>Agriculture, Potable, Electricity generation and Environment</td>
</tr>
<tr>
<td>Name of the River</td>
<td>Haraz</td>
</tr>
<tr>
<td>Mean annual discharge (MCM)</td>
<td>832</td>
</tr>
<tr>
<td>Type of Dam</td>
<td>Rockfill Dam</td>
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<tr>
<td>Height from Foundation (M)</td>
<td>150</td>
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<tr>
<td>Reservoir Volume in Normal Elevations (MCM)</td>
<td>240</td>
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<tr>
<td>Annual Regulated Water (MCM)</td>
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<tr>
<td>Nominal Capacity of Hydropower Plant</td>
<td>25</td>
</tr>
<tr>
<td>Stage/Phase</td>
<td>Executive Phase (Dam's body)</td>
</tr>
<tr>
<td>Progress (%)</td>
<td>227.2</td>
</tr>
<tr>
<td>Estimated Investment Cost (Million USD)</td>
<td>291</td>
</tr>
</tbody>
</table>
5. Baghan Dam

<table>
<thead>
<tr>
<th>Implementing body (Executive Org.)</th>
<th>Boushehr Regional Water Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan’s Code</td>
<td>40201 498</td>
</tr>
<tr>
<td>Province</td>
<td>Boushehr</td>
</tr>
<tr>
<td>Dam’s Site</td>
<td>Jam City, 1.3 Kilometer southeast of Baghan Village</td>
</tr>
<tr>
<td>Objective/s</td>
<td>Agriculture, Potable, Industry, Flood Control and Environment</td>
</tr>
<tr>
<td>Name of the River</td>
<td>Baghan (Mand branch)</td>
</tr>
<tr>
<td>Mean annual discharge (MCM)</td>
<td>24</td>
</tr>
<tr>
<td>Type of Dam</td>
<td>Roller Compacted Concrete Dam</td>
</tr>
<tr>
<td>Height from Foundation (M)</td>
<td>56</td>
</tr>
<tr>
<td>Reservoir Volume in Normal Elevations (MCM)</td>
<td>32</td>
</tr>
<tr>
<td>Annual Regulated Water (MCM)</td>
<td>19</td>
</tr>
<tr>
<td>Nominal Capacity of Hydropower Plant</td>
<td>Executive Phase (Dam’s body)</td>
</tr>
<tr>
<td>Stage/Phase</td>
<td>7</td>
</tr>
<tr>
<td>Progress (%)</td>
<td>52</td>
</tr>
<tr>
<td>Estimated Investment Cost (Million USD)</td>
<td>108</td>
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</table>
6. Balakhanloo Dam

<table>
<thead>
<tr>
<th>Implementing body (Executive Org.)</th>
<th>Ghazvin Regional Water Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan's Code</td>
<td>40201707</td>
</tr>
<tr>
<td>Province</td>
<td>Ghazvin</td>
</tr>
<tr>
<td>Dam's Site</td>
<td>35 Kilometer Southwest of Booelinzohra, Balakhanloo Village</td>
</tr>
<tr>
<td>Objective/s</td>
<td>Agriculture, Potable, Flood Control, Artificial Recharge and Environment</td>
</tr>
<tr>
<td>Name of the River</td>
<td>Heijranbo</td>
</tr>
<tr>
<td>Mean annual discharge (MCM)</td>
<td>23</td>
</tr>
<tr>
<td>Type of Dam</td>
<td>Earth Dam with Clay Core</td>
</tr>
<tr>
<td>Height from Foundation (M)</td>
<td>84</td>
</tr>
<tr>
<td>Reservoir Volume in Normal Elevations (MCM)</td>
<td>39</td>
</tr>
<tr>
<td>Annual Regulated Water (MCM)</td>
<td>15</td>
</tr>
<tr>
<td>Nominal Capacity of Hydropower Plant</td>
<td>Executive Phase (Dam's Body)</td>
</tr>
<tr>
<td>Stage/Phase</td>
<td>57.5</td>
</tr>
<tr>
<td>Progress (%)</td>
<td>34</td>
</tr>
<tr>
<td>Estimated Investment Cost (Million USD)</td>
<td>291</td>
</tr>
</tbody>
</table>
7. Transferring Water to the Central Plataea (Behest Abad plan)

<table>
<thead>
<tr>
<th>Implementing body (Executive Org.)</th>
<th>Iran Water and Power Resources Development Co.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan's Code</td>
<td>40201275</td>
</tr>
<tr>
<td>Province</td>
<td>Isfahan</td>
</tr>
<tr>
<td>Dam's Site</td>
<td>Ardal</td>
</tr>
<tr>
<td>Objective/s</td>
<td>Potable, Industry, Environment &amp; Inter-basin</td>
</tr>
<tr>
<td>Name of the River</td>
<td>Behesthabad- Koohrang</td>
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<tr>
<td>Mean annual discharge (MCM)</td>
<td>1070</td>
</tr>
<tr>
<td>Type of Dam</td>
<td>Double curvature arch dam</td>
</tr>
<tr>
<td>Height from Foundation (M)</td>
<td>174</td>
</tr>
<tr>
<td>Reservoir Volume in Normal Elevations (MCM)</td>
<td>1521</td>
</tr>
<tr>
<td>Annual Regulated Water (MCM)</td>
<td>8.46</td>
</tr>
<tr>
<td>Stage/Phase</td>
<td>Executive Phase (Dam's body)</td>
</tr>
<tr>
<td>Progress (%)</td>
<td>6</td>
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<tr>
<td>Tunnel Length (Kilometer)</td>
<td>65</td>
</tr>
<tr>
<td>Tunnel Diameter (m)</td>
<td>5.8</td>
</tr>
<tr>
<td>Mean Volume of Water Transferred via the Tunnel (MCM)</td>
<td>250</td>
</tr>
<tr>
<td>Tunnel Flow Regime</td>
<td>Pressurized</td>
</tr>
<tr>
<td>Estimated Investment Cost (Million USD)</td>
<td>1009</td>
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### 8. Lasak Dam

<table>
<thead>
<tr>
<th>Implementing body (Executive Org.)</th>
<th>Gilan Water Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan's Code</td>
<td>40201738</td>
</tr>
<tr>
<td>Province</td>
<td>Gilan</td>
</tr>
<tr>
<td>Dam's Site</td>
<td>45 Kilometer southwest of Rasht, Shaft City</td>
</tr>
<tr>
<td>Objective/s</td>
<td>Agriculture, Potable, Industry &amp; Environment</td>
</tr>
<tr>
<td>Name of the River</td>
<td>Choobir &amp; Lasak</td>
</tr>
<tr>
<td>Mean annual discharge (MCM)</td>
<td>122</td>
</tr>
<tr>
<td>Type of Dam</td>
<td>Earth Dam with Clay Core</td>
</tr>
<tr>
<td>Height from Foundation (M)</td>
<td>2.87</td>
</tr>
<tr>
<td>Reservoir Volume in Normal Elevations (MCM)</td>
<td>65</td>
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<tr>
<td>Annual Regulated Water (MCM)</td>
<td>111</td>
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<tr>
<td>Nominal Capacity of Hydropower Plant</td>
<td>Understudy (Second Phase)</td>
</tr>
<tr>
<td>Stage/Phase</td>
<td>100</td>
</tr>
<tr>
<td>Progress (%)</td>
<td>84</td>
</tr>
<tr>
<td>Estimated Investment Cost (Million USD)</td>
<td>291</td>
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</table>
9. Polroud Dam

<table>
<thead>
<tr>
<th>Implementing body (Executive Org.)</th>
<th>Gilan Regional Water Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan’s Code</td>
<td>40201051</td>
</tr>
<tr>
<td>Province</td>
<td>Gilan</td>
</tr>
<tr>
<td>Dam’s Site</td>
<td>18 Kilometer southwest of Koachay, 7 Kilometer far from Rahimabad Village</td>
</tr>
<tr>
<td>Objective/s</td>
<td>Agriculture, Potable, Electricity Generation and Environment</td>
</tr>
<tr>
<td>Name of the River</td>
<td>Polroud</td>
</tr>
<tr>
<td>Mean annual discharge (MCM)</td>
<td>457</td>
</tr>
<tr>
<td>Type of Dam</td>
<td>Earth Dam with Clay Core</td>
</tr>
<tr>
<td>Height from Foundation (M)</td>
<td>100</td>
</tr>
<tr>
<td>Reservoir Volume in Normal Elevations (MCM)</td>
<td>132</td>
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<tr>
<td>Annual Regulated Water (MCM)</td>
<td>205</td>
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<tr>
<td>Nominal Capacity of Hydropower Plant</td>
<td>16</td>
</tr>
<tr>
<td>Stage/Phase</td>
<td>Executive (Dam’s Body)</td>
</tr>
<tr>
<td>Progress (%)</td>
<td>30</td>
</tr>
<tr>
<td>Estimated Investment Cost (Million USD)</td>
<td>127.5</td>
</tr>
</tbody>
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### 10. Aghbolagh Dam

<table>
<thead>
<tr>
<th>Implementing body (Executive Org.)</th>
<th>Chaharmahal &amp; Bakhtiyari Regional Water Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plan’s Code</td>
<td>40201524</td>
</tr>
<tr>
<td>Province</td>
<td>Chaharmahal Va Bakhtiyari</td>
</tr>
<tr>
<td>Dam’s Site</td>
<td>20 kilometer southwest of Boroojen</td>
</tr>
<tr>
<td>Objective/s</td>
<td>Agriculture</td>
</tr>
<tr>
<td>Name of the River</td>
<td>Aghbolagh</td>
</tr>
<tr>
<td>Mean annual discharge (MCM)</td>
<td>76</td>
</tr>
<tr>
<td>Type of Dam</td>
<td>Earth Dam with Clay Core</td>
</tr>
<tr>
<td>Height from Foundation (M)</td>
<td>38</td>
</tr>
<tr>
<td>Reservoir Volume in Normal Elevations (MCM)</td>
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</tr>
<tr>
<td>Annual Regulated Water (MCM)</td>
<td>25</td>
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<tr>
<td>Nominal Capacity of Hydropower Plant</td>
<td>Under Study (Second Phase)</td>
</tr>
<tr>
<td>Stage/Phase</td>
<td>100</td>
</tr>
<tr>
<td>Progress (%)</td>
<td>19</td>
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<tr>
<td>Estimated Investment Cost (Million USD)</td>
<td>291</td>
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</tbody>
</table>
### 11. Mohammad Abad Dam

<table>
<thead>
<tr>
<th>Implementing body (Executive Org.)</th>
<th>Golestan Regional Water Authority</th>
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</thead>
<tbody>
<tr>
<td>Plan's Code</td>
<td>40201380</td>
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<tr>
<td>Province</td>
<td>Golestan</td>
</tr>
<tr>
<td>Dam's Site</td>
<td>15 Kilometer west of Mohammad Abad River</td>
</tr>
<tr>
<td>Objective/s</td>
<td>Potable, Flood Control &amp; Environment</td>
</tr>
<tr>
<td>Name of the River</td>
<td>Mohammadabad</td>
</tr>
<tr>
<td>Mean annual discharge (MCM)</td>
<td>Earth Dam with Clay Core</td>
</tr>
<tr>
<td>Type of Dam</td>
<td>5-15</td>
</tr>
<tr>
<td>Height from Foundation (M)</td>
<td>19</td>
</tr>
<tr>
<td>Reservoir Volume in Normal Elevations (MCM)</td>
<td>Understudy (First Phase)</td>
</tr>
<tr>
<td>Annual Regulated Water (MCM)</td>
<td>62</td>
</tr>
<tr>
<td>Nominal Capacity of Hydropower Plant</td>
<td>41.3</td>
</tr>
<tr>
<td>Stage/Phase</td>
<td>Executive (Dam’s Body)</td>
</tr>
<tr>
<td>Progress (%)</td>
<td>30</td>
</tr>
<tr>
<td>Estimated Investment Cost (Million USD)</td>
<td>127.5</td>
</tr>
</tbody>
</table>
12. Big Karoon (shoaibieh) Irrigation and Drainage Network

Geographical Location: Ahvaz, Shoaibieh Region
Implementing body (Executive Org.): Khuzestan Water and Power Organization
Plan’s Code: 40201091
Plan’s Area (goal): 15000 Ha.
Water Supply Method: Reservoir Dam
Budget allocated and spent:
Estimated Investment Cost: 126 Million USD
Physical Progress: 47%
13. Jarch Irrigation and Drainage Network

Geographical Location: Ahvaz, Ramhormoz
Implementing body (Executive Org.): Khuzestan Water and Power Organization
Plan’s Code: 40201577
Plan’s Area (goal): 10000 Ha.
Water Supply Method: Ramhormoz Reservoir Dam
Budget allocated and spent: 792138 Million Rials
Estimated Investment Cost: 84 Million USD
Physical Progress: 44% (including the left and right side banks)
14. Abadan Irrigation and Drainage Network

Geographical Location: Abadan
Implementing body (Executive Org.): Khuzestan Water and Power Organization
Plan’s Code: 40201092
Plan’s Area (goal): 3000 Ha.
Water Supply Method: Karoon River
Budget allocated and spent: 1633000 Million Rials
Estimated Investment Cost: 126 Million USD
Physical Progress: 64 %
15. Khoramshahr Irrigation and Drainage Network

Geographical Location: Khoramshahr, Bahmanshir Region
Implementing body (Executive Org.): Khuzestan Water and Power Organization
Plan's Code: 40201093
Plan's Area (goal): 10000 Ha.
Water Supply Method: Karoon River
Budget allocated and spent: 1193000 Million Rials
Estimated Investment Cost: 84 Million USD
Physical Progress: 60%
16. Aydoghmoosh Irrigation and Drainage Network

Geographical Location: South and West Part of Mianeh city
Implementing body (Executive Org.): East Azarbaijan Regional Water Authority
Plan's Code: 40201572
Plan's Area (goal): 5000 Ha.
Water Supply Method: Reservoir Dam
Budget allocated and spent: 322900 Million Rials
Estimated Investment Cost: 42 Million USD
Physical Progress: 52 %
17. Gharanghoo Irrigation and Drainage Network

Geographical Location: 25 Kilometer far from Hashtroud City
Implementing body (Executive Org.): East Azerbaijan Regional Water Authority
Plan’s Code: 40201564
Plan’s Area (goal): 5000 Ha.
Water Supply Method: Reservoir Dam
Budget allocated and spent: 46140 Million Rials
Estimated Investment Cost: 42 Million USD
Physical Progress: 40%
18. Givi Irrigation and Drainage Network

Geographical Location: Kousar City
Implementing body (Executive Org.): Ardabil Regional Water Authority
Plan's Code: 40201615
Plan's Area (goal): 7000 Ha.
Water Supply Method: Reservoir Dam
Budget allocated and spent: 16700 Million Rials
Estimated Investment Cost: 58.8 Million USD
Physical Progress: 20 %
19. Sabalan Irrigation and Drainage network

Geographical Location: Meshkin Shahr (City)
Implementing body (Executive Org.): Ardabil Regional Water Authority
Plan’s Code: 40201567
Plan’s Area (goal): 5000 Ha.
Water Supply Method: Reservoir Dam
Budget allocated and spent: 730600 Million Rials
Budget Required: 1250000 Million Rials (42 Million USD)
Physical Progress: 43 %
20. Zirdan Irrigation and Drainage Network

Geographical Location: 60 Kilometer Northeast of Chabahar
Implementing body (Executive Org.): Sistan & Baloochestan Regional Water Authority
Plan’s Code: 40201553
Plan’s Area (goal): 2000 Ha.
Water Supply Method: Reservoir Dam
Budget allocated and spent: 492513 Million Rials
Estimated Investment Cost: 19.3 Million USD
Physical Progress: 20 %
21. Kahir Irrigation and Drainage Network

Geographical Location: 110 Km west of Chabahar City
Implementing body (Executive Org.): Sistan & Baloochistan Regional Water Authority
Plan's Code: 40201554
Plan's Area (goal): 5000 Ha.
Water Supply Method: Kahir Reservoir Dam
Budget allocated and spent: 85003 Million Rials
Estimated Investment Cost: 42 Million USD
Physical Progress: 12 %
22 Doroudzan Irrigation and Drainage Network

Geographical Location: Tashk Sub basin, Bakhtagan & Moharloo, Marvast City
Implementing body (Executive Org.): Fars Regional Water Authority
Plan's Code: 40201083
Plan's Area (goal): 25000 Ha.
Water Supply Method: Daroudzan Dam, Kor River
Budget allocated and spent: 593043 Million Rials
Estimated Investment Cost: 210.2 Million USD
Physical Progress: 90 %
23. Studying and Execution Plan of Priority Lands Drainage

Geographical Location: North Part of Gharasoo and Gorganroud Rivers
Implementing body (Executive Org.): Golestan Regional Water Authority
Plan’s Code: 40201512
Plan’s Area (goal): 10000 Ha.
Water Supply Method: Natural River Regime
Budget allocated and spent: 111551 Million Rials
Estimated Investment Cost: 84 Million USD
Physical Progress:
24. Polroud Irrigation and Drainage Network

Geographical Location: Roudsar City, Gilan Province
Implementing body (Executive Org.): Gilan Regional Water Authority
Plan’s Code: 40201589
Plan’s Area (goal): 16000 Ha.
Water Supply Method: Polroud Dam
Budget allocated and spent: 131198 Million Rials
Estimated Investment Cost: 137.4 Million USD
Physical Progress: 28 %
25. Kamandan Irrigation and Drainage Network

Geographical Location: 20 Kilometer south of Azna City
Implementing body (Executive Org.): Lorestan Regional Water Authority
Plan’s Code: 40201612
Plan’s Area (goal): 7000 Ha.
Water Supply Method: Reservoir Dam
Budget allocated and spent: 154697 Million Rials
Estimated Investment Cost: 57.8 Million USD
Physical Progress: 75%
Geographical Location: West Coastal area of Caspian Sea (Gilan Plain)
Implementing body (Executive Org.): Gilan Regional Water Authority
Plan’s Code: 40201082
Plan’s Area (goal): 27700 Ha.
Water Supply Method: Sefidrood Reservoir Dam
Budget allocated and spent: 1415546 Million Rials
Estimated Investment Cost: 118.4 Million USD
Physical Progress: 78%
27. Hendijan Irrigation and Drainage Network

Geographical Location: Southeast of Behbahan, Sub basin of Jarahi Zohreh
Implementing body (Executive Org.): Khuzestan Water and Power Organization
Plan’s Code: 40201094
Plan’s Area (goal): 15000 Ha.
Water Supply Method: Zohreh River Natural Regime
Budget allocated and spent:
Estimated Investment Cost: 126 Million USD
Physical Progress:
28. Azadegan Plain Irrigation and Drainage Network

Geographical Location: Azadegan Plain Region
Implementing body (Executive Org.): Khuzestan Water and Power Organization
Plan's Code: 40201096
Plan's Area (goal): 10000 Ha.
Water Supply Method: Karkheh Dam
Budget allocated and spent:
Estimated Investment Cost: 84 Million USD
Physical Progress:
29. Big Karoon (Mianab) Irrigation and Drainage Network

Geographical Location: South of Shoshtar City, Ezeh, Northeast of Ahvaz
Implementing body (Executive Org.): Khuzestan Water and Power Organization
Plan's Code: 40201091
Plan's Area (goal): 16000 Ha.
Water Supply Method: Karoun I Dam (Shahid Abbaspour)
Budget allocated and spent:
Estimated Investment Cost: 134.5 Million USD
Physical Progress:
Maroon (sub main) Irrigation and Drainage Network

Geographical Location: Northeast of Behbahan City
Implementing body (Executive Org.): Khuzestan Water and Power Organization
Plan's Code: 40201001
Plan's Area (goal): 45000 Ha.
Water Supply Method: Maroon Reservoir Dam
Budget allocated and spent:
Estimated Investment Cost: 378.3 Million USD
Physical Progress:
Geographical Location: Miandoab
Implementing body (Executive Org.): West Azerbaijan Regional Water Authority
Plan’s Code: 40201084
Plan’s Area (goal): 9000 Ha.
Water Supply Method: Reservoir Dam
Budget allocated and spent:
Estimated Investment Cost: 75.7 Million USD
Physical Progress: 93 %
32. Aghchay Irrigation and Drainage Network

Geographical Location: 40 Kilometer far from Khoy and 212 kilometer from Uromieh City
Implementing body (Executive Org.): West Azarbaijan Regional Water Authority
Plan’s Code: 40204004
Plan’s Area (goal): 7000 Ha.
Water Supply Method: Reservoir Dam
Budget allocated and spent: 158000 Million Rials
Estimated Investment Cost: 58.8 Million USD
Physical Progress: 49 %
33. Siazakh Irrigation and Drainage Network

Geographical Location: Kordestan Province, Divandareh City, Sub basin of Big Sofidroud
Implementing body (Executive Org.): Kordestan Regional Water Authority
Plan’s Code: 40201582
Plan’s Area (goal): 20000 Ha.
Water Supply Method: Siazakh Dam
Budget allocated and spent: 28,560 Million Rials
Estimated Investment Cost: 68.1 Million USD
Physical Progress: 30%
Kherasan III Hydropower

Location: Chaharmahal & Bakhtiari' Lordegan
Plan's code: 40601012
Implementing body (Executive Org.): Iran Water and Power Resources Development Company

Technical Specifications:
- Type of Dam: Double curvature arch dam
- Height from Foundation: 195 meters
- Reservoir net volume: 638 MCM
- Annual Regulated Water: 27.49 MCM
- Plan's Objectives: Electricity generation (410 megawatt capacity and 1106 gig watt hour energy), Flood Control, Regulate flows and Employment
- Name of River: Khersan
- Estimated Investment Cost: 303 million USD
- Phase/stage: Execution
- Progress: 56%
35. Developing Gotvand Hydropower Plant

Location: Khuzestan, Gotvand
Plan's code: 40601010
Implementing body (Executive Org.): Iran Water and Power Resources Development Company
Technical Specifications:
- Type of Dam: Height from Foundation:
- Reservoir net volume: Annual Regulated Water
- Plan's Objectives: Electricity generation (640 megawatt capacity and 1659 gig watt hour energy)
Name of River: Karoon
Estimated Investment Cost: 235 million USD
Phase/stage: Execution
36. Azad Pumping-Storage Plant

Location: Kordestan, Sanandaj
Plan's code: 40204019
Implementing body (Executive Org.): Iran Water and Power Resources Development Company
Technical Specifications:
- Type of Dam: Rock fill with clay core
- Height from Foundation: 125 meters
- Reservoir net volume: 300 MCM
- Annual Regulated Water: 180 MCM
- Plan's Objectives: Electricity generation (510 megawatt capacity and 1095 gigawatt hour energy)
Name of River: Koomasi, Azadroud Branch
Estimated Investment Cost: 235 million USD
Phase/stage: Execution
Progress: 73.5%
Bakhtiari Hydropower Plant

Location: Lorestan, Andeimeshk
Plan's code: 40601012
Implementing body (Executive Org.): Iran Water and Power Resources Development Company
Technical Specifications:
- Type of Dam: Double curvature arch dam
- Height from Foundation: 285 meters
- Reservoir net volume:
- Annual Regulated Water:
- Plan’s Objectives: Electricity generation (750 megawatt capacity and 1500 gigawatt hour energy)
Name of River: Bakhtiari
Estimated Investment Cost: 2000 million USD
Phase/stage: Execution
Progress: 3 %
38. Seimareh Pumping Storage Plant

Location: Ilam, Darehshahr
Plan's code: 40601012
Implementing body (Executive Org.): Iran Water and Power Resources Development Company

Technical Specifications:

- Type of Dam: Double curvature arch dam
- Height from Foundation: 180 meters
- Reservoir net volume: 996 MCM
- Annual Regulated Water: 2887 MCM
- Plan's Objectives: Electricity generation (nominal capacity: 400 megawatt)

Name of River: Seimareh
Estimated Investment Cost: 750 million USD
Phase/stage: Execution
Progress: 15 %
39. Lorestan Roudbar Pumping Storage Plant

Location: Lorestan, Aligoodarz
Plan's code: 40601007
Implementing body (Executive Org.): Iran Water and Power Resources Development Company
Technical Specifications:
- Type of Dam: Rock fill with clay Core
- Height from Foundation: 156 meters
- Reservoir net volume: 228 MCM
- Annual Regulated Water: 960 MCM
- Plan's Objectives: Electricity generation (450 megawatt capacity and 986 gig watt hour energy), Flood Control, Tourist, Employment
Name of River: Roodbar
Estimated Investment Cost: 505 million USD
Phase/stage: Execution
Progress: 83 %
40. Ardal Hydropower Plant

Location: Chaharmahal & Bakhtiari, Ardal
Plan’s code:
Implementing body (Executive Org.): Iran Water and Power Resources Development Company
Technical Specifications:
20 megawatt capacity and 108 gigawatt hour energy
▲ Type of Dam:
▲ Height from Foundation:
▲ Reservoir net volume:
▲ Annual Regulated Water:
▲ Plan’s Objectives: Electricity generation (20 megawatt capacity and 108 gig watt hour energy)
Name of River: Azizabad
Estimated Investment Cost: 44 million USD
Phase/stage: Execution
41. Nemarestagh Hydropower Plant

Location: Mazandaran, Amol
Plan's code:
Implementing body (Executive Org.): Iran Water and Power Resources Development Company
Technical Specifications:
- Type of Dam:
- Height from Foundation:
- Reservoir net volume:
- Annual Regulated Water:
- Plan's Objectives: Electricity generation (Two hydropower plants as Nemarestagh I and II with a total capacity of 126 megawatt and 72 gig watt hour energy)
Name of River: Nemarestagh
Estimated Investment Cost: 40 million USD
Phase/stage: Execution
Water & Wastewater Projects

National Water and Wastewater Engineering Company
Mr. Seyed Hamid Reza Kashfi
Tel: +982188992210
   +982188980553
Fax:+982188990190
Email: kashfi@nww.ir
www.nww.ir
## Water and Wastewater projects

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Wastewater treatment plants (Rural, small communities and residential complexes)</td>
</tr>
<tr>
<td>2</td>
<td>Consumption management and installation of intelligent meters</td>
</tr>
<tr>
<td>3</td>
<td>Implementation of water supply plans</td>
</tr>
<tr>
<td>4</td>
<td>Construction of desalination systems</td>
</tr>
<tr>
<td>4-1</td>
<td>Master Plan for production and transmission of desalinated water in the south</td>
</tr>
<tr>
<td>5</td>
<td>Implementation of NRW projects in a number of cities</td>
</tr>
<tr>
<td>6</td>
<td>Sludge management and construction of WWTP in large cities</td>
</tr>
<tr>
<td>7</td>
<td>Completion of wastewater systems against allocation of effluents in the frame of buyback contracts</td>
</tr>
<tr>
<td>8</td>
<td>Construction of small scale treatment plants in the administration buildings of the Ministry of Energy</td>
</tr>
</tbody>
</table>

**Total**
## Estimated Investment Cost

<table>
<thead>
<tr>
<th>No. of projects</th>
<th>Type of investment</th>
<th>Currency (USD million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 villages</td>
<td>BOT</td>
<td>140</td>
</tr>
<tr>
<td>3 million meters</td>
<td>ROT</td>
<td>281</td>
</tr>
<tr>
<td>2 plans</td>
<td>Finance / BOT</td>
<td>40</td>
</tr>
<tr>
<td>4 plans</td>
<td>BOO</td>
<td>83</td>
</tr>
<tr>
<td>2 master plans</td>
<td>BOO</td>
<td>3,600</td>
</tr>
<tr>
<td>35 plans</td>
<td>BOT / ROT</td>
<td>200</td>
</tr>
<tr>
<td>4 WWTP</td>
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<td>204</td>
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<tr>
<td>17 plans</td>
<td>Buyback</td>
<td>770</td>
</tr>
<tr>
<td>100 units</td>
<td>Purchase</td>
<td>180</td>
</tr>
</tbody>
</table>

**Total:** 5,498
1-Wastewater treatment plants (Rural, small communities and residential complexes)

- Brief description of presentable project: Implementation of projects related to collection of wastewater in prioritized villages
- Type of Investment: Build – Operate – Transfer (BOT)
- Investment amount required: USD 140 million
2-Consumption management through installation of intelligent meters

- Brief description of presentable project: Replacement of about 3 million domestic meters with state of the arts intelligent ones equipped with remote reading systems.
- Type of Investment: Renovate – Operate – Transfer (ROT)
- Investment amount required: USD 281 million
3- Water supply plans (transmission lines – pumping stations – treatment plants)

- Brief description of presentable project: Construction of treatment works and pumping stations of 650 l/s in capacity in the city of Gorgan
- Type of Investment: Build – Operate – Transfer (BOT)
- Investment amount required: USD 31 million
- Brief description of presentable project: Construction of treatment works and pumping stations for potable water of 186 l/s in capacity in the towns of Mahalat and Nimoor
Type of Investment: Build – Operate – Transfer (BOT)
Investment amount required: USD 9 million

4- Construction of desalination systems

Brief description of presentable project: Construction of seawater desalination systems of 40,000 m³/day in capacity in the region of Lamerd in the Province of Fars
Purpose: Supply of potable water for towns and villages along the route and supply of water required by industries in the region
Technical requirements: Application of new technologies with high energy efficiency

Type of Investment: Build – Own – Operate (BOO)

Investment amount required: USD 50 million

Brief description of presentable project: Construction of desalination systems of 12,500 m³/day in capacity from Bahmanshir River in the city of Abadan

Purpose: Supply of potable water for the city of Abadan

Technical requirements: Application of new technologies with high energy efficiency

Type of Investment: Build – Own – Operate (BOO)

Investment amount required: USD 9.4 million

Brief description of presentable project: Construction of desalination systems of 12,500 m³/day in capacity from Bahmanshir River in the city of Khoramshahr
Purpose: Supply of potable water for the city of Khoramshahr
Technical requirements: Application of new technologies with high energy efficiency
Type of Investment: Build – Own – Operate (BOO)
Investment amount required: USD 9.4 million

Brief description of presentable project: Construction of seawater desalination systems of 40,000 m³/day in capacity in the town of Siraf
Purpose: Supply of potable water for towns, villages and industries in the region
Technical requirements: Application of new technologies with high energy efficiency
Type of Investment: Build – Own
Investment Opportunities in the Utilities Industry

- Operate (BOO)
  Investment amount required: USD 1.4 million

  Brief description of presentable project: Master Plans for production of potable water and its transmission to the southern provinces and the central plateau of the country

  Phase 1:
  The southern provinces in the volume of 1 million m³

  Phase 2:
  The provinces in the central plateau in the volume of 2 million m³

Technical requirements: Application of new technologies with high energy efficiency

Type of Investment: Build – Own – Operate (BOO)

Investment amount required: Phase 1 in the amount of USD 1,200 million
Investment amount required: Phase 2 in the amount of USD 2,400 million
5-Wastewater treatment plants in small communities
1. Pressure management in the urban water distribution network
2. Design and execution of DMA
3. Rehabilitation and renovation of the distribution network
4. Leak detection activities
5. Standardization of water connections
6. Installation of meters at the inlets of the distribution networks
7. Other relevant activities
8. Conduction of studies and consultancy services to reduce NRW by foreign private sector
9. Supply of specialized software applications for NRW reduction by foreign private sector
10. Investment to build capacity in the field of accurate volumetric meter production
11. Transfer of new technologies for leak and pipe detection to the country with investment in this field
12. Investment in production of water consumption reducing equipment in the country
13. Investment in production of water and effluent recycling systems
14. Specialized training of the national experts of Iran for transferring the relevant experiences
15. Undertaking executive actions to reduce water consumption in the country
16. Initial estimation of the number of meters required by the water network in the country is as per the following table:

<table>
<thead>
<tr>
<th>Type of Meter Required</th>
<th>Diameter</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electromagnetic</td>
<td>100</td>
<td>637</td>
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<tr>
<td></td>
<td>150</td>
<td>1429</td>
</tr>
<tr>
<td></td>
<td>200</td>
<td>947</td>
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<tr>
<td></td>
<td>250</td>
<td>259</td>
</tr>
<tr>
<td></td>
<td>300</td>
<td>268</td>
</tr>
<tr>
<td></td>
<td>350</td>
<td>76</td>
</tr>
<tr>
<td></td>
<td>400</td>
<td>168</td>
</tr>
<tr>
<td></td>
<td>Others</td>
<td>197</td>
</tr>
<tr>
<td></td>
<td>400</td>
<td>1400</td>
</tr>
</tbody>
</table>

Type of Investment: Build – Operate – Transfer (BOT) and Renovate – Operate – Transfer (ROT) investment amount required: USD 200 million
6-Construction of wastewater treatment plant

Brief description of presentable project: Construction of wastewater treatment plant (modules 7 and 8) of 1,200,000 PE (84 million MCM/Year) in capacity in two phases of liquid and sludge for the city of Tehran.

Purpose: Sanitary treatment of wastewater in the city of Tehran.

Technical requirements: Application of new technologies and setting up power generation units (biogas systems).

Type of Investment: Build – Operate – Transfer (BOT).

Investment amount required: USD 94 million.

Brief description of presentable project: Construction of Central Tehran wastewater treatment plant in the region of Shoosh with a capacity of 700,000 PE (50 million MCM/Year).

Purpose: Sanitary treatment of wastewater in the city of Tehran.

Technical requirements: Application of new technologies and setting up power generation units (biogas systems).
Type of Investment: Build – Operate – Transfer (BOT)
Investment amount required: USD 50 million

Brief description of presentable project: Construction of Varamin wastewater treatment plant of 11 million MCM/Year in capacity
Purpose: Sanitary treatment of wastewater in the city of Varamin

Type of Investment: Build – Operate – Transfer (BOT)
Investment amount required: USD 13 million

Brief description of presentable project: Construction of wastewater treatment plant in the region of Sorkhe Hesar of Tehran with a capacity of 50 million MCM/Year
Purpose: Sanitary treatment of wastewater in the city of Tehran

Technical requirements: Application of new technologies and setting up power generation units (biogas systems)
Type of Investment: Build – Operate – Transfer (BOT)
Investment amount required: USD 47 million
7. Completion of wastewater system against allocation of treated effluent in the frame of buyback contracts

Brief description of presentable project: Construction of wastewater treatment plant, main collection network and laterals and transmission line in the city of Meybod

Purpose: Sanitary treatment of wastewater in the city of Meybod and reuse of treated effluents for industries

Type of Investment: Buyback against allocation of effluent

Investment amount required: USD 57 million

Brief description of presentable project: Construction of module 2 of the wastewater treatment plant in the city of Islamabad West

Purpose: Sanitary treatment of wastewater in the city of Islamabad West and reuse of treated effluents for industries

Type of Investment: Buyback against allocation of effluent

Investment amount required: USD 10 million

Brief description of presentable project: Construction of expansion module of the Olam wastewater treatment plant in the city of Mashhad

Purpose: Sanitary treatment of wastewater in the city of Mashhad and reuse of treated effluents for industries

Type of Investment: Buyback against allocation of effluent

Investment amount required: USD 50 million

Brief description of presentable project: Construction of Kerman wastewater treatment plant
Purpose: Sanitary treatment of wastewater in the city of Kerman and reuse of treated effluents for industries
Type of Investment: Buyback against allocation of effluent
Investment amount required: USD 23 million

Brief description of presentable project: Construction of wastewater treatment plant, main collection network and laterals and transmission line in the city of Zarand

Purpose: Sanitary treatment of wastewater in the city of Zarand and reuse of treated effluents for industries
Type of Investment: Buyback against allocation of effluent
Investment amount required: USD 48 million

Brief description of presentable project: Upgrading module 1 of Bandar Abbas wastewater treatment plant

Purpose: Sanitary treatment of wastewater in the city of Bandar Abbas and reuse of treated effluents for industries
Type of Investment: Buyback against allocation of effluent
Investment amount required: USD 32 million

Brief description of presentable project: Construction of wastewater treatment plant, main collection network and laterals and transmission line in the town of Sadra - Shiraz

Purpose: Sanitary treatment of wastewater in the city of Sadra and reuse of treated effluents for industries
Type of Investment: Buyback against allocation of effluent
Investment amount required: USD 7 million
Brief description of presentable project: Construction of wastewater treatment plant, main collection network and laterals and transmission line in the town of Lar
Purpose: Sanitary treatment of wastewater in the town of Lar and reuse of treated effluents for industries
Type of Investment: Buyback against allocation of effluent

Investment amount required: USD 40 million
Brief description of presentable project: Construction of wastewater treatment plant, main collection network and laterals and transmission line in the city of Bojnoord
Purpose: Sanitary treatment of wastewater in the city of Bojnoord and reuse of treated effluents for industries
Type of Investment: Buyback against allocation of effluent

Investment amount required: USD 133 million
Brief description of presentable project: Construction of wastewater treatment plant, main collection network and laterals and transmission line in the city of Broojen
Purpose: Sanitary treatment of wastewater in the city of Broojen and reuse of treated effluents for industries
Type of Investment: Buyback against allocation of effluent

Investment amount required: USD 33 million
Brief description of presentable project: Construction of wastewater treatment plant, main collection network and laterals and transmission line in the town of Parand
Purpose: Sanitary treatment of wastewater in the town of Parand and reuse of treated effluents for industries
Type of Investment: Buyback against allocation of effluent

Investment amount required: USD 133 million
Brief description of presentable project: Construction of wastewater treatment plant, main collection network and laterals and transmission line in the towns of Khoramdareh, Hidej and Saeen Ghale
Purpose: Sanitary treatment of wastewater in the towns of Khoramdareh, Hidej
and Saeen Ghale and reuse of treated effluents for industries
Type of Investment: Buyback against allocation of effluent
Investment amount required: USD 37 million

Brief description of presentable project: Construction of wastewater treatment plant, main collection network and laterals and transmission line in the city of Abhar

Purpose: Sanitary treatment of wastewater in the city of Abhar and reuse of treated effluents for industries
Type of Investment: Buyback against allocation of effluent
Investment amount required: USD 16 million

Brief description of presentable project: Construction of wastewater treatment plant, main collection network and laterals and transmission line in the city of Iranshahr

Purpose: Sanitary treatment of wastewater in the city of Iranshahr and reuse of treated effluents for industries
Type of Investment: Buyback against allocation of effluent
Investment amount required: USD 43 million

Brief description of presentable project: Construction of wastewater treatment plant, main collection network and laterals and transmission line in the town of Sharifieh

Purpose: Sanitary treatment of wastewater in the Town of Sharifieh and reuse of treated effluents for industries
Type of Investment: Buyback against allocation of effluent
Investment amount required: USD 27 million

Brief description of presentable project: Construction of modules 1 and 2 of Qazvin wastewater treatment plant

Purpose: Sanitary treatment of wastewater in Qazvin and reuse of treated effluents for industries
Type of Investment: Buyback against allocation of effluent
Investment amount required: USD 42 million
8-Construction of small scale wastewater treatment plants in the administrative buildings of the Ministry of energy

Brief description of presentable project: Design, purchase, installation and execution of 100 units of small scale wastewater treatment plants in the administrative buildings of the Ministry of Energy

Investment amount required: USD 180 million
Power Projects

Iran Power Generation, Transmission & Distribution
Management Company (Tavanir)
Mr. Seyed Masoud Taghavaei
Tel: +982127935739
Fax: +982188778437
Email: m.taghvaei@tavanir.org.ir
www.tavanir.org.ir
<table>
<thead>
<tr>
<th>Row</th>
<th>Name of Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TREC Power transmissions and sub transmission lines and substations</td>
</tr>
<tr>
<td>2</td>
<td>Power plants increase efficiency (Via buyback and repowering method)</td>
</tr>
<tr>
<td>3</td>
<td>High efficiency combined cycle power plants development</td>
</tr>
<tr>
<td>4</td>
<td>Development of Small Scale DG &amp; CHP</td>
</tr>
<tr>
<td>5</td>
<td>Renewable energy</td>
</tr>
</tbody>
</table>

**SUM**
<table>
<thead>
<tr>
<th>Number</th>
<th>Amount (USD Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>396 Substations &amp; 450 KM, High voltage Cable</td>
<td>3.13</td>
</tr>
<tr>
<td>13356 MW</td>
<td>9.261</td>
</tr>
<tr>
<td>5936 MW</td>
<td>3.8</td>
</tr>
<tr>
<td>3000 MW</td>
<td>2</td>
</tr>
<tr>
<td>3000 MW</td>
<td>5.78</td>
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<td></td>
<td><strong>23.97</strong></td>
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### 1- Power Transmission and sub-Transmission substations

<table>
<thead>
<tr>
<th>Name of Project</th>
<th>Set</th>
<th>Credit (US$ Billion)</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 KV Substations</td>
<td>35</td>
<td>1.3</td>
</tr>
<tr>
<td>230 KV Substations</td>
<td>49</td>
<td>1.4</td>
</tr>
<tr>
<td>132 KV Substations</td>
<td>85</td>
<td></td>
</tr>
<tr>
<td>63 KV Substations</td>
<td>227</td>
<td></td>
</tr>
<tr>
<td>Tehran City (63 KV cable)</td>
<td>450 KM</td>
<td>0.5</td>
</tr>
<tr>
<td><strong>Sum</strong></td>
<td></td>
<td><strong>~ 3.13</strong></td>
</tr>
</tbody>
</table>

**Project name**

| 1 | Buying equipment for Transmission Substations (Under the Supervision of the IPDC) | 84 Substations |

*www.ipdc.ir*

### 1.1- 400 KV Sub-station Projects for Investment

<table>
<thead>
<tr>
<th>Target Regional Power Company</th>
<th>Ratio(KV)</th>
<th>Quantity * Capacity (MVA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Azarbaijan(6), Zanjan(2), Gharb(2), Fars(2), Kerman(2), Mazandaran(2)</td>
<td>400/230</td>
<td>16 * 315</td>
</tr>
<tr>
<td>2 Tehran(4)</td>
<td>400/230</td>
<td>4 * 500</td>
</tr>
<tr>
<td>3 Tehran(2)</td>
<td>400/230</td>
<td>2 * 200</td>
</tr>
<tr>
<td>4 Azarbayjan(2), Khorasan(10), Khuzestan(12), Fars(2), Kerman(4), Hormozgan(2)</td>
<td>400/132</td>
<td>32 * 200</td>
</tr>
<tr>
<td>5 Fars(10)</td>
<td>400/66</td>
<td>10 * 200</td>
</tr>
<tr>
<td>6 Tehran(2), Mazandaran(2), Yazd(2), Bakhtar(2)</td>
<td>400/63</td>
<td>8 * 200</td>
</tr>
</tbody>
</table>

### 1.2 - 230 KV Sub-station Projects for Investment

<table>
<thead>
<tr>
<th>Target Regional Power Company</th>
<th>Ratio(KV)</th>
<th>Quantity * Capacity (MVA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Azarbaijan(6), Kerman(2)</td>
<td>230/132</td>
<td>8 * 160</td>
</tr>
<tr>
<td>2 Fars(14)</td>
<td>230/66</td>
<td>14 * 160</td>
</tr>
<tr>
<td>3 Tehran(2)</td>
<td>230/20</td>
<td>6 * 50</td>
</tr>
<tr>
<td>4 Tehran(8), Mazandaran(4)</td>
<td>230/63</td>
<td>2 * 250</td>
</tr>
<tr>
<td>5 Bakhtar(6), Tehran(2), Zanjan(2), Gharb(2), Gilan(2), Hormozgan(14), Yazd(2)</td>
<td>230/63</td>
<td>12 * 180</td>
</tr>
<tr>
<td>6 Tehran(2), Sistan&amp; Baluchestan(16), Gilan(4)</td>
<td>230/63</td>
<td>30 * 160</td>
</tr>
<tr>
<td>8 Khuzestan(2)</td>
<td>230/33</td>
<td>2 * 50</td>
</tr>
<tr>
<td>Project name</td>
<td>Quantity</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------------------</td>
<td>----------------------</td>
<td></td>
</tr>
<tr>
<td>Investment in buying equipment of the Sub Transmission Substations And Sub-transmission Lines (Under the Supervision of the TREC®)</td>
<td>312 Substations</td>
<td></td>
</tr>
<tr>
<td></td>
<td>450 Km lines</td>
<td></td>
</tr>
</tbody>
</table>

* Tehran Regional Electric Company

### 1.3- 132 KV Sub-station Projects for Investment

<table>
<thead>
<tr>
<th>Target Regional Power Company</th>
<th>Ratio(KV)</th>
<th>Quantity * Capacity (MVA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Azarbaijan(20), Kerman(2), Hormozgan(4), Yazd (2), Fars (18)</td>
<td>132/20</td>
<td>46 * 50</td>
</tr>
<tr>
<td>2 Azarbaijan(6), Kerman(4), Khorasan(42), Gharb (2)</td>
<td>132/20</td>
<td>54 * 40</td>
</tr>
<tr>
<td>3 Khuzeastan (70)</td>
<td>132/33</td>
<td>70 * 50</td>
</tr>
</tbody>
</table>

### 1.4 -66 & 63 KV Sub-station Projects for Investment

<table>
<thead>
<tr>
<th>Target Regional Power Company</th>
<th>Ratio(KV)</th>
<th>Quantity * Capacity (MVA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Fars (108)</td>
<td>66/20</td>
<td>108 * 40</td>
</tr>
<tr>
<td>2 Isfahan (26), Bakhtar(26), Tehran(180, including 70 GIS), Semnan (14), Gilan(8), Mazandaran (20), Hormozgan(10), Azarbaijan (8), Zanjan [10, including 4 GIS], Sistan&amp; Baluchestan(20), Gharb (8), Kerman (12), Gilan(4)</td>
<td>63/20</td>
<td>284 * 40</td>
</tr>
<tr>
<td>4</td>
<td>63/20</td>
<td>62 * 30</td>
</tr>
</tbody>
</table>
Azarbayjan regional Electrical Company

a) 400/230 KV 2*315 MVA Sahand Power Plant Substation
b) 400/230 KV 2*315 MVA Haris Power Plant Substation
c) 400/230 KV 2*315 MVA Sabalan Power Plant Substation
d) 400/132 KV 2*200 MVA Hashtrood Substation
Bakhtar regional Electrical Company

a) 400/230 KV 2*315 MVA Khomain Substation
a) 400/230 KV 2*500 MVA Tehranpars Substation
b) 400/230 KV 2*500 MVA Dar Abad Substation
c) 400/63 KV 2*200 MVA Baghestan Substation
Khorasan regional Electrical Company

c) 400/132 KV 2*200 MVA Kohsangi Substation
b) 400/132 KV 2*200 MVA Bojnord Substation
c) 400/132 KV 2*200 MVA Doulat Abad Substation
d) 400/132 KV 2*200 MVA Binaloud Substation
e) 400/132 KV 2*200 MVA Emam Reza Substation
a) 400/132 KV 2*200 MVA Pirozan Substation
b) 400/132 KV 2*200 MVA Isar Substation
c) 400/132 KV 2*200 MVA Parsomash Substation
d) 400/132 KV 2*200 MVA Jondi Shapour Substation
e) 400/132 KV 2*200 MVA Shahid Baghai Substation
f) 400/132 KV 2*200 MVA Monfared Niaki Substation
Zanjan regional Electrical Company

a) 400/230 KV 2*315 MVA Takestan Substation
Gharb regional Electrical Company

a) 400/230 KV 2*315 MVA Sanandaj Substation
Fars regional Electrical Company

- a) 400/230 KV 2*315 MVA Marv Dasht Substation
- b) 400/132 KV 2*200 MVA Khormoj Substation
- c) 400/66 KV 2*200 MVA Marv Dasht Substation
- d) 400/66 KV 2*200 MVA Sarhad Substation
- e) 400/66 KV 2*200 MVA Dehbid Substation
- f) 400/66 KV 2*200 MVA Darab Substation
- g) 400/66 KV 2*200 MVA Kharameh Substation
Kerman regional Electrical Company

a) 400/230 KV 2*315 MVA Kahnooj Substation
b) 400/132 KV 2*200 MVA Khatoon Abad Substation
c) 400/132 KV 2*200 MVA Jiroft Substation
Mazandaran regional Electrical Company

- a) 400/230 KV 2*315 MVA Markaz Mazandaran Substation
- b) 400/63 KV 2*200 MVA Gorgan Substation
Hormozgan regional Electrical Company

a) 400/132 KV 2*200 MVA Haji Abad Substation
Yazd regional Electrical Company

a) 400/63 KV 2*200 MVA Mehriz Substation
2- Power plants increase efficiency (Via buyback and repowering method)

Outline of a buyback contract

To stimulate private sector investment in the infrastructural water and power plans and projects and to have this sector further engaged in the abovementioned area we need to prepare relevant desirable projects. Therefore the Iranian law permits this opportunity to foreign companies, involvement in projects through Buyback contracts.

Ministry of Energy introduces some projects under buyback contract. Iran’s power industry requires investments of USD 24 billion in the short and medium time.

Iran would like to interest international power and energy companies in investing in Iran’s power business by offering buyback contracts. Under a buyback contract an international company invests and when production starts, the field is handed over to the ministry of energy or one of its representatives.

According to the Iranian government, the buyback contract contains sufficient incentives for international companies to invest in Iran.
Outline of Repowering Projects

Due to the rapid increase of power consumption in Iran, older power plants cannot be taken offline. Therefore in addition to building new power plants, repowering older power plants by eliminating the old boiler systems and coupling them with gas turbines or by using heat recovery steam generators, is a suitable course of action. As one of the more important investment areas in Iranian power industry, 19 power plants have been preselected for optimization using one of the mentioned methods.

General Information

Foreign Investment Promotion and Protection Act (FIPPA):
* No restriction on the percentage of foreign shareholding.
* The volume of foreign investment in each individual case shall not be subject the any limitation.
* (and 4) – repatriation of principal capital and profits is permissible.
* No restriction of the kind of acceptable investment.
* Facilitation of foreign investors entrance and residency.
* Coverage of non-commercial risks.
* Shortening the admission process and issuance of foreign investment license.
* Admittance of foreign governmental companies.
* Compensation of losses caused by expropriation and nationalization.
* Possibility of investment by Iranian investors using foreign originated capital, instead of foreigners.
* Possibility of referring disputes international arbitration.
* Foreign investors, (who have already invested in Iran, may benefit from “FIPPA” coverage for the principal investment already made.

Other facilities

Taxes (duties) exemption
* Up the 80% for 4 years.
* In less developed areas) 100% for 10 years.
* Exporting 100% without limitations.
2- Power plants increase efficiency (Via buyback and repowering method)

2-1- Chabahar Power Plant

Project Location (site) & Images: 15th kilometer of Chabahar-Iranshahr Rd , Chabahar , Sistan and Baluchestan Province , Islamic Republic of Iran
Type of Contract: Buyback Plant

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
* Preparation of needed land for steam section of power plant
* Preparation of needed electricity for construct period which per-
formed
• Preparation of fuel for operation period which performed (Costs will be paid by government)
• The ability of connection to the network through the power plant substation

Project Time Schedule (Period of Preparation, Construction & Operation):
• Development period: 6 months to 1 year.
• Construction period: 36 to 39 months.
• Return of capital period: Up to 2 years.

Feasibility Study:
• feasibility studies by investor

Position of Land Ownership:
• Is owned by the private investor.

Legal Permissions (License of Construction, Foreign currency quota, environmental assessment, etc.):
• Obtain the required environmental permit
Technical and Economic Specifications

Model of Investment:
• Buyback

Capacity:
• about 160MW consisting of 1 steam unit.

Total Capital Investment Forecasting:
• more than 176 million Dollar

Return of capital period (year):
• Up to 2 years

Net Present Value (NPV) - million Rials:
• International Rate of Return (IRR) %: 12 percent
2- Power plants increase efficiency

2.2- Golestan (Aliabad) Power Plant

Project Location (site) & Images: Near the city of Aliabad-e-Katul, Golestan Province, Islamic Republic of Iran
Type of Contract: Buyback

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
• Preparation of needed land for steam section of power plant
• Preparation of needed electricity for construct period which performed
• Preparation of fuel for opera-
tion period which performed (Costs will be paid by government)
• The ability of connection to the network through the power plant substation
Project Time Schedule (Period of Preparation, Construction & Operation):
• Development period: 6 months to 1 year.
• Construction period: 36 to 39 months.
• Return of capital period: Up to 2 years.
Site Preparation:
Feasibility Study:
• Feasibility studies by investor
Position of Land Ownership: Is owned by the private investor.
Legal Permissions (License of Construction, Foreign currency quota,
environmental assessment, etc.):
• Obtain the required environmental permit and permit for water
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 480MW consisting of 3 steam units.
Total Capital Investment Forecasting: more than 528 million Dollar
Return of capital period (year): Up to 2 years
Net Present Value (NPV) - million Rials:
International Rate of Return (IRR) %: 12 percent
2.3- Hafez Power Plant

Project Location (site) & Images:
16th kilometer of Shiraz-Fasa Rd, Fars Province, Islamic Republic of Iran

Type of Contract:
Buyback

Project Status

Present Infrastructure (Supply of land, water, electricity & gas):
* Preparation of needed land for steam section of power plant
* Preparation of needed electricity for construct period which performed
* Preparation of fuel for operation peri-
od which performed (Costs will be paid by government)
• The ability of connection to the network through the power plant substation
Project Time Schedule (Period of Preparation, Construction & Operation):
• Development period: 6 months to 1 year.
• Construction period: 36 to 39 months.
• Return of capital period: Up to 2 years.
Site Preparation:
Feasibility Study:
• feasibility studies by IPDC
Position of Land Ownership: Is owned by the IPDC.
Legal Permissions (License of Construction, Foreign currency quota, environmental assessment, etc.):
• Environmental permit has been obtained.
• Water permit has been obtained.
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 480MW consisting of the 3 steam units.

Total Capital Investment Forecasting: more than 528 million Dollar

Return of capital period (year):
Up to 2 years

Net Present Value (NPV) - million Rials:

International Rate of Return (IRR) %: 12 percent
2. Power plants increase efficiency

2.4- Hormozgan Power Plant

Project Location (site) & Images:
25 km north of Bandar Abbas, Hormozgan Province, Islamic Republic of Iran

Type of Contract:
Buyback

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
- Preparation of needed land for steam section of power plant
- Preparation of needed electricity for construct period which performed
- Preparation of fuel for operation
period which performed (Costs will be paid by government)

• The ability of connection to the network through the power plant substation

Project Time Schedule (Period of Preparation, Construction & Operation):

• Development period: 6 months to 1 year.
• Construction period: 36 to 39 months.
• Return of capital period: Up to 2 years.

Site Preparation:
Feasibility Study:
• Feasibility studies by IPDC
Position of Land Ownership: Is owned by the IPDC.

Legal Permissions (License of Construction, Foreign currency quota, environmental assessment, etc.):
• Environmental permit has been obtained.
• Water supply contract was signed in the gas section, but there is not enough water.
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 320MW consisting of 2 steam units.

Total Capital Investment Forecasting: more than 352 million Euro

Return of capital period (year): Up to 2 years

Net Present Value (NPV) - million Rials:

International Rate of Return (IRR) %: 12 percent
2.5- Iranshahr Power Plant

Project Location (site) & Images:
5th kilometer of Iranshahr-Bampour Rd, Sistan and Baluchestan Province, Islamic Republic of Iran

Type of Contract:
Buyback

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
* Preparation of needed land for steam section of power plant
* Preparation of needed electricity for construct period which performed
* Preparation of fuel for operation peri-
od which performed (Costs will be paid by government)

* The ability of connection to the network through the power plant substation

Project Time Schedule (Period of Preparation, Construction & Operation):
* Development period: 6 months to 1 year.
* Construction period: 36 to 39 months.
* Return of capital period: Up to 2 years.

Site Preparation:
* Land ready for delivery

Feasibility Study:
* Feasibility studies by IPDC

Position of Land Ownership: Is owned by the IPDC.

Legal Permissions (License of Constriction, Foreign currency quota, environmental assessment, etc.):
* Correspondence necessary to permit the water supply is done.
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 160MW consisting of 1 steam unit.
Total Capital Investment Forecasting: more than 176 million Dollar

Return of capital period (year):
Up to 2 years

Net Present Value (NPV) - million Rials:
International Rate of Return (IRR) %: 12 percent
2- Power plants increase efficiency

2.6- Kashan Power Plant

Project Location (site) & Images:
20th kilometer of Kashan-Ardestan Rd, Isfahan Province, Islamic Republic of Iran

Type of Contract:
Buyback

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
- Preparation of needed land for steam section of power plant
- Preparation of needed electricity for construct period which performed
- Preparation of fuel for operation
period which performed (Costs will be paid by government)

- The ability of connection to the network through the power plant substation

Project Time Schedule (Period of Preparation, Construction & Operation):
- Development period: 6 months to 1 year.
- Construction period: 36 to 39 months.
- Return of capital period: Up to 2 years.

Site Preparation:
Feasibility Study:
- feasibility studies by investor
Position of Land Ownership: Is owned by the private investor.
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 160 MW consisting of 1 steam unit.

Total Capital Investment Forecasting: more than 176 million Dollar

Return of capital period [year]: Up to 2 years

Net Present Value [NPV] - million Rials:

International Rate of Return [IRR] %: 12 percent
2- Power plants increase efficiency

2.7- Khaleej Fars Power Plant

Project Location (site) & Images:
At distance of 45 km northeast of Bandar Abbas and 11 km of Sarkhoon gas field, Hormozgan Province, Islamic Republic of Iran

Type of Contract:
Buyback

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
• Preparation of needed land for steam section of power plant
• Preparation of needed electricity for construct period which performed
• Preparation of fuel for operation
period which performed (Costs will be paid by government)
• The ability of connection to the network through the power plant substation
Project Time Schedule (Period of Preparation, Construction & Operation):
• Development period: 6 months to 1 year.
• Construction period: 36 to 39 months.
• Return of capital period: Up to 2 years.
Site Preparation:
Feasibility Study:
• feasibility studies by IPDC
Position of Land Ownership: Is owned by the IPDC.
Legal Permissions (License of Construction, Foreign currency quota, environmental assessment, etc.):
• Regional Water agrees to sell water and declared under tariff
Technical and Economic Specifications

**Model of Investment:**
Buyback

**Capacity:**
about 480MW consisting of 3 steam units.

**Total Capital Investment Forecasting:** more than 528 million Euro

**Return of capital period (year):**
Up to 2 years

**Net Present Value (NPV) - million Rials:**
International Rate of Return (IRR) %: 12 percent
2.8- Mahshahr Power Plant

Project Location (site) & Images:
9th kilometer of Petrochemical-Chamran Rd, Mahshahr, Khuzestan Province, Islamic Republic of Iran
Type of Contract:
Buyback

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
• Preparation of needed land for steam section of power plant
• Preparation of needed electricity for construction period which performed
• Preparation of fuel for operation period
which performed (Costs will be paid by government)

- The ability of connection to the network through the power plant substation

Project Time Schedule (Period of Preparation, Construction & Operation):
- Development period: 6 months to 1 year.
- Construction period: 36 to 39 months.
- Return of capital period: Up to 2 years.

Site Preparation:
Feasibility Study:
- feasibility studies by IPDC

Position of Land Ownership: Is owned by the IPDC.

Legal Permissions (License of Constriction, Foreign currency quota, environmental assessment, ect.):
- Environmental permit has been obtained.
- Required water is supplied by the gas section.
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 320MW consisting of 2 steam units.

Total Capital Investment Forecasting: more than 352 million Dollar

Return of capital period (year):
Up to 2 years

Net Present Value (NPV) - million Rials:

International Rate of Return (IRR) %: 12 percent
2- Power plants increase efficiency

2.9- Parand Power Plant

Project Location (site) & Images:
30th kilometer of Tehran-Saveh Highway, Tehran Province, Islamic Republic of Iran

Type of Contract:
Buyback

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
- Preparation of needed land for steam section of power plant
- Preparation of needed electricity for construction period which performed
- Preparation of fuel for operation period
which performed (Costs will be paid by government)

- The ability of connection to the network through the power plant substation

Project Time Schedule (Period of Preparation, Construction & Operation):
- Development period: 6 months to 1 year.
- Construction period: 36 to 39 months.
- Return of capital period: Up to 2 years.

Site Preparation:
- 11%

Feasibility Study:
- feasibility studies by investor
- Position of Land Ownership: Is owned by the private investor.
- Legal Permissions (License of Construction, Foreign currency quota, environmental assessment, etc.):
- Obtain the required environmental permit and permit for water
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 480MW consisting of 3 steam units.

Total Capital Investment Forecasting: more than 528 million Dollar

Return of capital period (year):
Up to 2 years

Net Present Value (NPV) - million Rials:

International Rate of Return (IRR) %: 12 percent
2- Power plants increase efficiency

2.10- Rudeshur Power Plant

Project Location (site) & Images:
44th kilometer of Tehran-Saveh Fwy, Markazi Province, Islamic Republic of Iran

Type of Contract:
Buyback

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
- Preparation of needed land for steam section of power plant
- Preparation of needed electricity for construct period which performed
- Preparation of fuel for operation period
which performed (Costs will be paid by government)

• The ability of connection to the network through the power plant substation

Project Time Schedule (Period of Preparation, Construction & Operation):

• Development period: 6 months to 1 year.
• Construction period: 36 to 39 months.
• Return of capital period: Up to 2 years.

Site Preparation:

• 3%

Feasibility Study:

• feasibility studies by investor

Position of Land Ownership: Is owned by the private investor.

Legal Permissions (License of Constriction, Foreign currency quota, environmental assessment, ect.):

• Obtain the required environmental permit and permit for water
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 340MW consisting of 1 steam unit.

Total Capital Investment Forecasting:
more than 374 million Dollar

Return of capital period (year): Up to 2 years
Net Present Value (NPV) - million Rials:
International Rate of Return (IRR) %: 12 percent
2- Power plants increase efficiency

2.11- Sabalan Power Plant

Project Location (site) & Images:
30th kilometer of Ardabil-Meshgin shahr Rd, Ardabil Province, Islamic Republic of Iran

Type of Contract:
Buyback

Project Status

Present Infrastructures
(Supply of land, water, electricity & gas):
• Preparation of needed land for steam section of power plant
• Preparation of needed electricity for construct period which performed
• Preparation of fuel for operation period
which performed (Costs will be paid by government)
• The ability of connection to the network through the power plant substation

Project Time Schedule (Period of Preparation, Construction & Operation):
• Development period: 6 months to 1 year.
• Construction period: 36 to 39 months.
• Return of capital period: Up to 2 years.

Site Preparation:
• 2%

Feasibility Study:
• feasibility studies by investor

Position of Land Ownership: Is owned by the private investor.
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 480MW consisting of 3 steam units.

Total Capital Investment Forecasting: more than 528 million Dollar

Return of capital period (year):
Up to 2 years

Net Present Value (NPV) - million Rials:
International Rate of Return (IRR) %: 12 percent
2- Power plants increase efficiency

2.12- Shahid Kaveh Power Plant

Project Location (site) & Images:
4th kilometer of Ghayen-Mashhad Rd., South Khorasan Province, Islamic Republic of Iran
Type of Contract:
Buyback

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
- Preparation of needed land for steam section of power plant
- Preparation of needed electricity for construction period which performed
- Preparation of fuel for operation period
which performed (Costs will be paid by government)

- The ability of connection to the network through the power plant substation

Project Time Schedule (Period of Preparation, Construction & Operation):

- Development period: 6 months to 1 year.
- Construction period: 36 to 39 months.
- Return of capital period: Up to 2 years.

Site Preparation:

- Land ready for delivery

Feasibility Study:

- Feasibility studies by IPDC

Position of Land Ownership: Is owned by the IPDC.

Legal Permissions (License of Construction, Foreign currency quota, environmental assessment, etc.):

- Correspondence for obtaining environmental permit and water permit was conducted
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 320MW consisting of 2 steam units.
Total Capital Investment Forecasting: more than 352 million Dollar

Return of capital period (year):
Up to 2 years
Net Present Value (NPV) - million Rials: -
International Rate of Return (IRR) %:
12 percent
2- Power plants increase efficiency

2.13- Shahrud Power Plant

Project Location (site) & Images:
15th kilometer of Shahrud-Damghan Rd, Semnan Province, Islamic Republic of Iran
Type of Contract: Buyback

Project Status

Present Infrastructures
(Supply of land, water, electricity & gas):
• Preparation of needed land for steam section of power plant
• Preparation of needed electricity for construction period which performed
• Preparation of fuel for operation period
which performed (Costs will be paid by government)
• The ability of connection to the network through the power plant substation
Project Time Schedule (Period of Preparation, Construction & Operation):
• Development period : 6 months to 1 year.
• Construction period : 36 to 39 months.
• Return of capital period : Up to 2 years.
Site Preparation:
• land ready for delivery
Feasibility Study:
• feasibility studies by IPDC
Position of Land Ownership: Is owned by the private IPDC.
Legal Permissions (License of Construction, Foreign currency quota, environmental assessment, ect.):
• Regional Water has declared its readiness to grant a water permit.
• Environmental permits have been obtained.
Technical and Economic Specifications

Model of Investment: Buyback

Capacity:
about 160MW consisting of 1 steam unit.

Total Capital Investment Forecasting:
much more than 176 million Dollar

Return of capital period (years):
Up to 2 years

Net Present Value (NPV) - million Rials:

International Rate of Return (IRR) %: 12 percent
2- Power plants increase efficiency

2.14- Soltanieh Power Plant

Project Location (site) & Images:
Sorkhe Dizaj Village, 25th kilometer of Qazvin-Zanjan Highway, Zanjan Province, Islamic Republic of Iran

Type of Contract:
Buyback

Project Status

Present Infrastructures
(Supply of land, water, electricity & gas):
- Preparation of needed land for steam section of power plant
- Preparation of needed electricity for construct period which performed
- Preparation of fuel for operation period
which performed (Costs will be paid by government)
• The ability of connection to the network through the power plant substation
Project Time Schedule (Period of Preparation, Construction & Operation):
• Development period: 6 months to 1 year.
• Construction period: 36 to 39 months.
• Return of capital period: Up to 2 years.
Site Preparation:
Feasibility Study:
• feasibility studies by investor
Position of Land Ownership: Land Ownership is on track
Legal Permissions (License of Construction, Foreign currency quota, environmental assessment, ect.):
• Obtain the required environmental permit
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 320MW consisting of 2 steam units.

Total Capital Investment Forecasting:
more than 352 million Dollar

Return of capital period (year):
Up to 2 years

Net Present Value (NPV) - million Rials:

International Rate of Return (IRR) %: 12 percent
2- Power plants increase efficiency

2.15- South Isfahan Power Plant

Project Location (site) & Images:
75 kilometers to the southwest Isfahan near the Mobarakeh Steel Complex, Isfahan Province, Islamic Republic of Iran

Type of Contract:
Buyback

Project Status

Present Infrastructures
(Supply of land, water, electricity & gas):
• Preparation of needed land for steam section of power plant
• Preparation of needed electricity for construct period which performed
• Preparation of fuel for operation period
which performed (Costs will be paid by government)
• The ability of connection to the network through the power plant substation
Project Time Schedule (Period of Preparation, Construction & Operation):
• Development period: 6 months to 1 year.
• Construction period: 36 to 39 months.
• Return of capital period: Up to 2 years.
Site Preparation:
Feasibility Study:
• feasibility studies by IPDC
Position of Land Ownership: Is owned by the IPDC.
Legal Permissions (License of
Constriction, Foreign currency quota,
environmental assessment, etc.):
• Environmental permit has been ob-
tained.
• Water permit has been obtained
(25 liters/sec) and in case of the
subscription payment, up to 40 liters can
be increased.
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 480MW consisting of 3 steam units.

Total Capital Investment Forecasting:
more than 528 million Dollar

Return of capital period (year):
Up to 2 years

Net Present Value (NPV) - million Riels:
International Rate of Return (IRR) %: 12 percent
2- Power plants increase efficiency

2.16- Urmia Power Plant

**Project Location (site) & Images:**
30th kilometer of Urmia-Mahabad Road, West Azerbaijan Province, Islamic Republic of Iran

**Type of Contract:**
Buyback

**Project Status**

**Present Infrastructures (Supply of land, water, electricity & gas):**
- Preparation of needed land for steam section of power plant
- Preparation of needed electricity for construction period which performed
- Preparation of fuel for operation period
which performed (Costs will be paid by government)
- The ability of connection to the network through the power plant substation
Project Time Schedule (Period of Preparation, Construction & Operation):
- Development period: 6 months to 1 year.
- Construction period: 36 to 39 months.
- Return of capital period: Up to 2 years.
Site Preparation:
Feasibility Study:
- feasibility studies by investor
Position of Land Ownership: is owned by the private investor.
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 480MW consisting of 3 steam units.

Total Capital Investment Forecasting: more than 528 million Dollar

Return of capital period (year):
Up to 2 years

Net Present Value (NPV) - million Rials:
International Rate of Return (IRR) %: 12 percent
2- Power plants increase efficiency

2.17- Zagros Power Plant

Project Location (site) & Images:
Kermanshah Province, Islamic Republic of Iran

Type of Contract:
Buyback

Project Status

Present Infrastructures
(Supply of land, water, electricity & gas):
* Preparation of needed land for steam section of power plant
* Preparation of needed electricity for construction period which performed
* Preparation of fuel for operation period
which performed (Costs will be paid by government)
*The ability of connection to the network through the power plant substation

Project Time Schedule (Period of Preparation, Construction & Operation):
*Development period: 6 months to 1 year.
*Construction period: 36 to 39 months.
*Return of capital period: Up to 2 years.

Site Preparation:
Feasibility Study:
*feasibility studies by investor

Position of Land Ownership: Transfer of land yet to be finalized
Technical and Economic Specifications

Model of Investment:
Buyback

Capacity:
about 320MW consisting of 2 steam units.

Total Capital Investment Forecasting: more than 352 million Euro

Return of capital period (year):
Up to 2 years

Net Present Value (NPV) - million Rials:

International Rate of Return (IRR) %: 12 percent
2.18- Repowering Projects
## 2.18- Repowering Projects

<table>
<thead>
<tr>
<th>Name</th>
<th>Steam Unit/No.</th>
<th>Practical Capacity/Unit (Mw)</th>
<th>Energy (Billion Kwh)</th>
<th>Initial Efficiency</th>
<th>Gas Unit/No.</th>
<th>Capacity/Unit (Mw)</th>
<th>Theoretical Capacity of Gas Unit/Mw</th>
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3- High efficiency combined cycle power plants development

General Information

Foreign Investment Promotion and Protection Act (FIPPA):  
- No restriction on the percentage of foreign shareholding.
- The volume of foreign investment in each individual case shall not be subject the any limitation.
- (and 4) — repatriation of principal capital and profits is permissible.
- No restriction of the kind of acceptable investment.
- Facilitation of foreign investors entrance and residency.
- Coverage of non-commercial risks.
- Shortening the admission process and issuance of foreign investment license.
- Admittance of foreign governmental companies.
- Compensation of losses caused by expropriation and nationalization.
- Possibility of investment by Iranian investors using foreign originated capital.
, instead of foreigners.
• Possibility of referring disputes international arbitration.
• Foreign investors, (who have already invested in Iran, may benefit from “FIPPA” coverage for the principal investment already made.

**Other facilities**

• **Taxes (duties) exemption**.
  o Up the 80% for 4 years.
  o (In less developed areas) 100% for 10 years.
  o Exporting 100% without limitations.
3- High efficiency combined cycle power plants development

3.1- Maragheh 848 MW CCPP

**Project Location (site) & Images:**
Maragheh, East Azarbayjan Province, Islamic Republic of Iran

**Type of Contract:** BOT

**Pre - Conditions of the Contract (Productivity, Equipment, etc.):**
- Usage of gas Turbines Class “F” or higher models from the point efficiency in combined cycle power plants.
- Efficiency of combined cycle power plant should be 58 percent or more.

**Project Status**

**Present Infrastructures (Supply of land, water, electricity & gas):**
- Preparation of needed power plant land which performed (Costs should be paid by investor)
- Preparation of water for construction
and operation periods which performed (Costs should be paid by investor)
• Preparation of needed electricity for construct period which performed (Costs will be paid by government)
• Preparation of gas for operation period which performed (Costs will be paid by government)
Project Time Schedule (Period of Preparation, Construction & Operation):
• Development period: 6 months to 1 year.
• Construction period: 36 to 39 months.
• Operation period: 20 years.
Site Preparation: Nothing done
Feasibility Study: Nothing done
Position of Land Ownership: East Azarbayjan Natural Resources Office
Legal Permissions (License of Construction, Foreign currency quota, environmental assessment, etc.): Nothing done
Technical and Economic Specifications

Model of Investment:
BOT

Capacity:
about 848MW consisting of the class “F” gas unit and the relative steam unit.

Total Capital Investment Forecasting: 678.4 million dollar

Operational Period (year):
20 years

Net Present Value (NPV) - million Rials:
International Rate of Return (IRR) %: 12 percent
3- High efficiency combined cycle power plants development

3.2- Miyaneh 848 MW CCPP

Project Location (site) & Images:
Miyaneh, East Azarbeyjan Province, Islamic Republic of Iran

Type of Contract:
BOT

Pre-Conditions of the Contract (Productivity, Equipment, etc.):
- Usage of gas Turbines Class “F” or higher models from the point efficiency in combined cycle power plants.
- Efficiency of combined cycle power plant should be 58 percent or more.

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
- Preparation of needed power plant land which performed (Costs should be paid by investor)
• Preparation of water for construction and operation periods which performed (Costs should be paid by investor)
• Preparation of needed electricity for construct period which performed (Costs will be paid by government)
• Preparation of gas for operation period which performed (Costs will be paid by government)

Project Time Schedule (Period of Preparation, Construction & Operation):
• Development period: 6 months to 1 year.
• Construction period: 36 to 39 months.
• Operation period: 20 years.

Site Preparation: Nothing done
Feasibility Study: Nothing done

Position of Land Ownership: East Azarbajjan Natural Resources Office

Legal Permissions (License of Constriction, Foreign currency quota, environmental assessment, etc.): Nothing done
Technical and Economic Specifications

Model of Investment: BOT
Capacity: about 848MW consisting of the class “F” gas unit and the relative steam unit.
Total Capital Investment Forecasting: 678.4 million dollar
Operational Period (year): 20 years
Net Present Value (NPV) - million Rials:
International Rate of Return (IRR) %: 12 percent
3- High efficiency combined cycle power plants development

3.3- Omidiyeh 848 MW CCPP

Project Location (site) & Images:
Omidiyeh-Mahshahr Road, Khuzestan Province, Islamic Republic of Iran

Type of Contract: BOT

Pre-Conditions of the Contract (Productivity, Equipment, etc.):
- Usage of gas Turbines Class “F” or higher models from the point efficiency in combined cycle power plants.
- Efficiency of combined cycle power plant should be 58 percent or more.

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
- Preparation of needed power plant land which performed (Costs should be paid by investor)
- Preparation of water for construction
and operation periods which performed (Costs should be paid by investor)
- Preparation of needed electricity for construct period which performed (Costs will be paid by government)
- Preparation of gas for operation period which performed (Costs will be paid by government)

Project Time Schedule (Period of Preparation, Construction & Operation):
- Development period: 6 months to 1 year.
- Construction period: 36 to 39 months.
- Operation period: 20 years.
Site Preparation: Nothing done
Feasibility Study:
- Carry out feasibility and network studies
Position of Land Ownership: Khuzestan regional electric company
Legal Permissions (License of Constriction, Foreign currency quota, environmental assessment, etc.):
- Obtain the required environmental permit, well permit for water, electricity permit and gas permit.
Technical and Economic Specifications

Model of Investment:
BOT

Capacity:
about 848MW consisting of the class “F” gas unit and the relative steam unit.

Total Capital Investment Forecasting:
678.4 million dollar

Operational Period (year):
20 years

Net Present Value (NPV) - million Rials:
International Rate of Return (IRR) %: 12 percent
3. High efficiency combined cycle power plants development

3.4- Fars North 848 MW CCPP

Name of Project:
Combined Cycle Power Plant

Project Location (site) & Images:
MarvDasht-Arsanjan Road, Fars Province, Islamic Republic of Iran

Type of Contract: BOT

Pre - Conditions of the Contract (Productivity, Equipment, etc.):
• Usage of gas Turbines Class “F” or higher models from the point efficiency in combined cycle power plants.
• Efficiency of combined cycle power plant should be 58 percent or more.

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
• Preparation of needed power plant land
which performed (Costs should be paid by investor)
  • Preparation of water for construction and operation periods which performed (Costs should be paid by investor)
  • Preparation of needed electricity for construct period which performed (Costs will be paid by government)
  • Preparation of gas for operation period which performed (Costs will be paid by government)

Project Time Schedule (Period of Preparation, Construction & Operation):
  • Development period: 6 months to 1 year.
  • Construction period: 36 to 39 months.
  • Operation period: 20 years.

Site Preparation: Nothing done
Feasibility Study: Nothing done
Position of Land Ownership: Fars Natural Resources Office
Legal Permissions (License of Construction, Foreign currency quota, environmental assessment, etc.): Nothing done
Technical and Economic Specifications

Model of Investment:
BOT

Capacity:
about 848MW consisting of the class “F” gas unit and the relative steam unit.

Total Capital Investment Forecasting:
678.4 million dollar

Operational Period (year): 20 years

Net Present Value (NPV) - million Rials:

International Rate of Return (IRR) %: 12 percent
3- High efficiency combined cycle power plants development

3.5- Tabriz 848 MW CCPP

Name of Project:
Combined Cycle Power Plant

Project Location (site) & Images:
Tabriz, East Azarbajjan Province, Islamic Republic of Iran

Type of Contract: BOT

Pre-Conditions of the Contract (Productivity, Equipment, etc.):
• Usage of gas Turbines Class “F” or higher models from the point efficiency in combined cycle power plants.
• Efficiency of combined cycle power plant should be 58 percent or more.

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
• Preparation of needed power plant land
which performed (Costs should be paid by investor)
• Preparation of water for construction and operation periods which performed (Costs should be paid by investor)
• Preparation of needed electricity for construct period which performed (Costs will be paid by government)
• Preparation of gas for operation period which performed (Costs will be paid by government)

Project Time Schedule (Period of Preparation, Construction & Operation):
• Development period: 6 months to 1 year.
• Construction period: 36 to 39 months.
• Operation period: 20 years.

Site Preparation: Nothing done
Feasibility Study: Nothing done
Position of Land Ownership: East Azarbayjan Natural Resources Office
Legal Permissions (License of Constriction, Foreign currency quota, environmental assessment, ect.): Nothing done
Technical and Economic Specifications

Model of Investment:
BOT

Capacity:
about 848MW consisting of the class “F” gas unit and the relative steam unit.

Total Capital Investment Forecasting: 678.4 million dollar

Operational Period (year):
20 years

Net Present Value (NPV) - million Rials:

International Rate of Return (IRR) %: 12 percent
3- High efficiency combined cycle power plants development

3.6- Zahedan 848 MW CCPP

**Project Location (site) & Images:**
Zahedan-Zabol Road, Sistan and Baluchestan Province, Islamic Republic of Iran

**Type of Contract:** BOT

**Pre - Conditions of the Contract (Productivity, Equipment, etc.):**
- Usage of gas Turbines Class “F” or higher models from the point efficiency in combined cycle power plants.
- Efficiency of combined cycle power plant should be 58 percent or more.

**Project Status**

**Present Infrastructures (Supply of land, water, electricity & gas):**
- Preparation of needed power plant land which performed (Costs should be paid by investor)
• Preparation of water for construction and operation periods which performed (Costs should be paid by investor)
• Preparation of needed electricity for construction period which performed (Costs will be paid by government)
• Preparation of gas for operational period which performed (Costs will be paid by government)

Project Time Schedule (Period of Preparation, Construction & Operation):
• Development period: 6 months to 1 year.
• Construction period: 36 to 39 months.
• Operation period: 20 years.

Site Preparation: Nothing done
Feasibility Study: Nothing done
Position of Land Ownership: Sistan Natural Resources Office
Legal Permissions (License of Construction, Foreign currency quota, environmental assessment, etc.): Nothing done
Model of Investment: BOT

Capacity:
about 848MW consisting of the class “F” gas unit and the relative steam unit.

Total Capital Investment Forecasting:
678.4 million dollars

Operational Period (years):
20 years

Net Present Value (NPV) - million Rials:

International Rate of Return (IRR) %: 12 percent
3- High efficiency combined cycle power plants development

3.7- Zanjan 500 MW CCPP

Project Location (site) & Images:
Sorkhe Dizaj Village, 25th kilometer of Qazvin-Zanjan Highway, Zanjan Province, Islamic Republic of Iran

Type of Contract: BOT

Pre-Conditions of the Contract (Productivity, Equipment, etc.):
- Usage of gas Turbines Class “F” or higher models from the point efficiency in combined cycle power plants.
- Efficiency of combined cycle power plant should be 58 percent or more.

Project Status

Present Infrastructures (Supply of land, water, electricity & gas):
- Preparation of needed power plant land which performed (Costs should be paid by investor)
- Preparation of water for construction and operation periods which performed (Costs should be paid by investor)
- Preparation of needed electricity for construct period which performed (Costs will be paid by government)
- Preparation of gas for operation period which performed (Costs will be paid by government)
- The distance (intervals) from the 400KW electricity transmission line, 3 kilometers.
- The distance (intervals) from the 230KW electricity transmission line, 2 kilometers.

Project Time Schedule (Period of Preparation, Construction & Operation):
- Development period: 6 months to 1 year.
- Construction period: 36 to 39 months.
- Operation period: 20 years.

Site Preparation:
- Prepare topographic maps of the site and carry out studies related to the access road to ghazwin _zanjan freeway.
- Construction of site perimeter wall and provide necessary power supply for the construction phase of the power plant.
- Complete well digging and install relating equipments.
- Construct necessary levee and access road.

Feasibility Study:
- Carry out environmental, geotechnical and hydrological studies
- Prepare and approve sight plan and SLD

Position of Land Ownership: Zanjan regional electric company

Legal Permissions (License of Constriction, Foreign currency quota, environmental assessment, etc.):
- Obtain necessary permit for digging a deep water well with a depth of 1.30 m and maximum output of 28.5 litr/s
- Obtain the required environmental permit, well permit for water, electricity permit and gas permit.
Technical and Economic Specifications

Model of Investment:
BOT

Capacity:
about 500MW consisting of the class “F” gas unit and the relative steam unit.

Total Capital Investment Forecasting:
more than 250 million Euro

Operational Period (year):
20 years

Net Present Value (NPV) - million Rials:
International Rate of Return (IRR) %: 12 percent
### 4. Development of Small Scale DG & CHP

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<tr>
<td>50</td>
<td>100</td>
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<tr>
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<tr>
<td>250</td>
<td>2000</td>
<td>450</td>
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<tr>
<td>2150</td>
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<td>17500</td>
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<tr>
<td>100</td>
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<tr>
<td>50</td>
<td></td>
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<tr>
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<tr>
<td>3000</td>
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5.1- Solar photovoltaic power projects

<table>
<thead>
<tr>
<th>Project Profile for foreign Investment</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction to Project</strong></td>
<td></td>
</tr>
<tr>
<td>Name of Project</td>
<td></td>
</tr>
<tr>
<td>Project Location (site) &amp; images</td>
<td></td>
</tr>
<tr>
<td><strong>Type of Contract</strong></td>
<td></td>
</tr>
<tr>
<td>Pre - Conditions of the Contract (Productivity; (Equipment; etc</td>
<td></td>
</tr>
<tr>
<td>present infrastructures (Supply of land; water; electricity &amp; gas</td>
<td></td>
</tr>
<tr>
<td>project Time Schedule (period of Preparation; (Construction &amp; Operation</td>
<td></td>
</tr>
<tr>
<td>Site Preparation</td>
<td></td>
</tr>
<tr>
<td>Feasibility Study</td>
<td></td>
</tr>
<tr>
<td>position of Land ownership</td>
<td></td>
</tr>
<tr>
<td>Legal Permissions (License of constriction; foreign (currency quota; environmental assessment; etc</td>
<td></td>
</tr>
<tr>
<td><strong>Technical and Economic Specifications</strong></td>
<td></td>
</tr>
<tr>
<td>Model of Investment</td>
<td></td>
</tr>
<tr>
<td>Capacity</td>
<td></td>
</tr>
<tr>
<td>Total Capital investment Forecasting</td>
<td></td>
</tr>
<tr>
<td>(Operational Period (year</td>
<td></td>
</tr>
<tr>
<td>(million Rails- Net present Value (NPV</td>
<td></td>
</tr>
<tr>
<td>%(International Rate of Return (IRR</td>
<td></td>
</tr>
<tr>
<td><strong>General Information</strong></td>
<td></td>
</tr>
<tr>
<td>Foreign Investment Promotion and Protection Act (FIPPA</td>
<td></td>
</tr>
<tr>
<td>Other facilities</td>
<td></td>
</tr>
<tr>
<td>Site Map</td>
<td></td>
</tr>
<tr>
<td>Name of Company (Address; Tel &amp; Fax; Email; (website</td>
<td></td>
</tr>
<tr>
<td>Solar Photovoltaic Power Plants (including 34 Power Plants</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Yazd - South &amp; Razavi Khorasan - Fars - Isfehan - Qom - Alborz - Sistan &amp; Balouchestan - Tehran - Semnan - Hormozgan</td>
<td></td>
</tr>
</tbody>
</table>

Guaranteed Electricity Purchase

Obtaining Environmental, Grid connection and Land Licenses

is available for some projects

PPA period is 20 years (including 18 months for Development and Construction period)

most of the projects are in process of obtaining licenses

has been done in some of the projects

has been done in some of the projects

in some projects, all legal licenses have been obtained

private sector - using foreign finance

about 400 MW

$ total investment about 800 million

years 20

will be obtained

is available in our brochure

private companies which names are attached to our brochure
### 5.2- Wind Power Projects

**Project Profile for foreign Investment**

<table>
<thead>
<tr>
<th>Introduction to Project</th>
<th>Name of Project</th>
<th>Project Location (site)&amp; images</th>
<th>Type of Contract</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>(Prerequisites of the Contract (Productivity; Equipment; etc)</td>
<td></td>
</tr>
<tr>
<td>project Status</td>
<td></td>
<td>(Present infrastructures (Supply of land; water; electricity&amp; gas</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>(project Time Schedule (period of Preparation; Construction &amp; Operation</td>
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<td></td>
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<td>Site Preparation</td>
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<td></td>
<td></td>
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<tr>
<td>Technical and Economic Specifications</td>
<td>Model of Investment</td>
<td>Capacity</td>
<td>Total Capital investment Forecasting</td>
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<tr>
<td></td>
<td></td>
<td>(Operational Period (year</td>
<td>(million Rials- Net present Value (NPV</td>
</tr>
<tr>
<td></td>
<td></td>
<td>%International Rate of Return (IRR</td>
<td>Foreign Investment Promotion and Protection Act (FIPPA</td>
</tr>
<tr>
<td>General Information</td>
<td></td>
<td>Other facilities</td>
<td>Site Map</td>
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<tr>
<td></td>
<td></td>
<td>(Name of Company (Address; Tel &amp; Fax; Email; website</td>
<td></td>
</tr>
</tbody>
</table>
(Wind Power Plants (including 32 Power Plants
Khaaf - Qazvin - Zabol - Ahar - Manjil & Binaloud areas

Guaranteed Electricity Purchase

Obtaining Environmental, Grid connection and Land Licenses

is available for some projects

(PPA period is 20 years (including 18 months for Development and Construction period

most of the projects are in process of obtaining licenses

has been done in some of the projects

has been done in some of the projects

in some projects, all legal licenses have been obtained

private sector - using foreign finance

about 2514 MW

$ about 4500 million

years 20

will be obtained

is available in our brochure

private companies which names are attached to our brochure
## 5.3- Bio-mass power Plants Projects

### Project Profile for foreign Investment

| Project Status | Name of Project  
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>Project Location (site) &amp; images</td>
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<td>present infrastructures (Supply of land; water; electricity &amp; gas)</td>
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<td>position of Land ownership</td>
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<td></td>
<td>Legal Permissions (License of constriction; foreign currency quota; environmental assessment; etc)</td>
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<tr>
<td>Technical and Economic Specifications</td>
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<td>Capacity</td>
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<td></td>
<td>Total Capital investment Forecasting</td>
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<td>Operational Period (year)</td>
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<td>million Rails- Net present Value (NPV)</td>
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<td>International Rate of Return (IRR) %</td>
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<td>General Information</td>
<td>Foreign Investment Promotion and Protection Act (FIPPA)</td>
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<tr>
<td></td>
<td>Other facilities</td>
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<tr>
<td></td>
<td>Site Map</td>
</tr>
<tr>
<td></td>
<td>Name of Company (Address; Tel &amp; Fax; Email; website)</td>
</tr>
</tbody>
</table>
**Bio-mass Power Plants (including 19 Power Plants)**

- Golestan
- East & West Azerbaijan
- Semnan
- Gilan
- Isfahan
- Fars
- Tehran
- Kordestan
- Kermanshah
- Khuzestan
- Sistan & Balouchestan
- Markazi
- Ardabil
- Qom
- Qazvin

**Guaranteed Electricity Purchase**

**Obtaining Environmental, Grid connection and Land Licenses**

is available for some projects

**PPA period is 20 years** (including 18 months for Development and Construction period)

most of the projects are in process of obtaining licenses

has been done in some of the projects

has been done in some of the projects

in some projects, all legal licenses have been obtained

**private sector - using foreign finance**

- about 7.5 MW

- total investment about 265 million $

- 20 years

- will be obtained

is available in our brochure

private companies which names are attached to our brochure
Ministry of Energy
Center of Export Promotion & Support Services of Water & Power Industries

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+98 21 81606792
Fax: +98 21 81606782
Email: ziba@moe.gov.ir
URL: http://www.moe.gov.ir