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Project Title:

Reviewing of geothermal energy technologies development roadmap and strategic plan

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| Project Financial Code: | 143110 | Project Quality Code: | PGEPN05 |
| Type of Project/Program: | Applied and Development | Assistant: | Energy & Environment |

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Keywords: Geothermal Energy, Technologies, Reviewing development roadmap

Project Necessity:

The preparation geothermal energy technologies development roadmap and strategic plan was carried out in 2015 by Niroo Research Institute. Like other upstream documents, this document needs to be revised based on the action plans of operations and budgeting. Therefore, different review periods have been considered for its revision. Now, after 5 years, Niroo Research Institute has updated this strategic document.

Project Goals:

The main purpose of this project is to review the strategic document and roadmap for developing geothermal energy technologies in Iran for the first time. The previous version has been written almost 5 years ago.

Abstract:

According to the previous studies, it has been found that like many other countries in the world, geothermal energy resources are abundant in Iran too. Therefore, it is necessary to plan for the exploration, production and exploitation of these resources in the country. Thus, as a basic and fundamental document, the first strategic document and roadmap for development of geothermal energy technologies were prepared in 2015. In this document, specific priorities have been set for the implementation of research and executive projects which are related to the development of geothermal technologies. The area (region) of the document is for the whole country in the next 10 years and the 1404 horizon. This document like all other upstream documents needs to be reviewed based on operational and budget

plan and there are some reviewing period for it. The main purpose of this project is to review the strategic document and roadmap for developing geothermal energy technologies in the country for the first time.

Steps and Methodologies:

In the first phase, the scope of studies of the geothermal technology development document was reviewed, and then the necessity of development has been updated.

In the second phase, technology intelligence and geothermal marketing strategies have been conducted. For this purpose, the identification of the technological areas and future studies of technology were updated, and then market research has been carried out according to the project framework.

In the third stage, strategies of geothermal energy were examined at the national level. Then, the strategies at the level of the Niroo research institute were determined. Finally, the technology development strategies in the field of geothermal energy have been compiled.

In the fourth phase, based on the methodology a plan of necessary actions were developed in order to develop geothermal energy technologies.

In the fifth phases, the roadmap and operational plan were developed. Then all relevant technical and executive projects were also extracted and suitable schedule and budget have been prepared for each of the proposed project.

In the sixth phase, the evaluation and updating plan for the development of geothermal energy technologies has been prepared.

Main Results (technical outputs, patents, papers, books, reports, etc.):

- The most important result of this project is the second version of the strategic document and road map for the development of geothermal energy technologies in Iran.
- Identifying the appropriate infrastructure to use geothermal energy resources for various applications in the country.
- Identification of the priority technologies of geothermal energy in Iran.
- Investigating the market of each technology in geothermal energy.
- Prioritizing geothermal energy technologies for Niroo Research Institute.
- Extracting 21 projects from the results of the studies.