

Annex of EC(2014)9826: Projects identified (with activities in Morocco)

Morocco Noor III : Tower plant of the Ouarzazate Solar Complex

Investment Facility	NIF
Opinion of the Operational Board	POSITIVE OPINION
Sector/DAC code	Energy/23067
Partner country/region	Morocco
Lead FI	European Investment Bank (EIB)
Co-financiers	KfW Bankengruppe (KfW); Agence Française de Développement (AFD)
EU contribution requested	€ 50,750,000* (Investment Grant)
Total cost of the project (including the EU contribution)	Between € 760,000,000 and € 855,000,000 (based on promoter's estimates) * For a project cost between €760,000,000 and above, the NIF subsidy will be EUR 50,750,000. If the project cost falls below €760,000,000, the NIF subsidy will be reduced pro-rata.
Objectives to be fulfilled (main)	<ul style="list-style-type: none"> • Introducing an innovative technology: CSP tower technologies, with molten salt receiver, dry cooling and thermal energy storage. • Building on the experience of Noor I in using a PPP business model to develop CSP power plants in Morocco and elsewhere. • Helping scaling-up a promising non-carbon power generation technology that ultimately may not require fossil fuel back-up capacity. • Contributing to Morocco's objectives of a more secure energy supply, energy diversification, CO2 emission reductions and increased employment by increasing the penetration of renewable energy in the country's energy mix and by contributing to the creation of a new green industry. • Supporting MASEN in finalizing the development of the up to 560 MW Ouarzazate Solar Complex by 2016 with a view to increasing the generation of power from CSP, and reducing greenhouse gas emissions

	<p>The Solar Complex is the first reference project for the vision to produce solar power in the desert regions of MENA on a large scale.</p>
Description of the activities	<p>This NIF application concerns the financing of thermal solar power plant with a capacity of 150 MW using concentrated solar power (CSP) tower technology (with storage), name 'Noor III' After the successful preparation of the first 160 MW CSP plant in Ouarzazate (Noor I) in Morocco, MASEN launched in January 2013, the selection of a consortium for the development, construction and operation on the same site of an extra 250 to 350 MW capacity composed of a ca. 150-200 MW CSP Parabolic Trough plant (Noor II) and a 100-150 MW CSP tower technology plant (Noor III). MASEN also plans the installation of a 50 MW photovoltaic plant on the same site in the next 3 years (Noor IV). The 4 projects Noor I to Noor IV - together with a research platform also envisaged for the site - will make up the Ouarzazate Solar Complex.</p>
Foreseen results	<ul style="list-style-type: none"> • Diffusion of renewable energies in Morocco will help to encourage innovation and the creation of a supply industry for the solar sector. • Additional controllable / balancing non-carbon power produced by the plant will back a growing country with a raising energy demand in a clean manner. • This facilitation of further economic growth will also create new jobs. • Reduction of poverty in the country through indirect (plus the direct) forms of employment creation
Location	Morocco
Duration i.e. implementation period and implementation timetable	<p>Indicative timetable:</p> <ul style="list-style-type: none"> • Target date of signature of EU Contribution Agreement with Lead FI: Q1 2015 • Target date of signature of EU Financing Agreement with Beneficiary: Q1 2015 • Start of activities financed by the EU grant: Q2 2015 • End of activities financed by the EU grant: Q2 2018 • End of project activities: 2042
Justification/additionality of the EU grant	<p>The price of electricity produced by thermal solar power plants is for the moment significantly higher compared to the production costs of conventional power plants. While CSP generation presents clear benefits in terms of secure grid operation, its relatively higher capital costs, when compared to PV and traditional fossil fuel technologies, have practical financing implications. The NIF grant will reduce the total investment costs either by financing</p>

	<p>MASEN equity share and/or by financing of part of the loans from MASEN to the SPC, the remainder of which will have to be borne by the Moroccan government. The Moroccan government explicitly requested the NIF funding as an essential element for making the financing structure affordable. Indeed, by the realization of the project, the NIF will facilitate the introduction of innovative and promising CSP tower technology in Morocco and promote the diffusion of renewable energies in the MENA region. This will help to encourage the creation of new employment in the solar sector.</p>
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Morocco – Projet de création des Instituts de formation aux métiers des énergies renouvelables et de l'efficacité énergétique (IFMERE)

Investment Facility	NIF
Opinion of the Operational Board	POSITIVE OPINION
Sector/DAC code	Social Sector/23081
Partner country/region	Morocco
Lead FI	Agence Française de Développement (AFD)
Co-financiers	Ministry of Education and Vocational Training and GIZ.
EU contribution requested	€ 10,200,000
Total cost of the project (including the EU contribution)	€ 26,000,000
Objectives to be fulfilled (main)	<p>(1) Creating a sectorial training offer in order to build a critical mass of technologists whose skills meet the requirements of public and private investors.</p> <p>(2) Developing new vocational training courses non-existent in Morocco.</p> <p>(3) Developing a regional job-training distributed throughout the territory which will meet the implementation strategies of economic operators;</p> <p>(4) Providing enterprises of the sector with technical assistance and advice</p>
Foreseen results	<p>The proposed creation of IFMERE aims to accompany the human resources component of the energy strategy of the Kingdom of Morocco.</p> <p>Besides promoting the systematic energy efficiency in the country's economic activity, this strategy aims to produce 42% of its energy from renewable sources. This goal will represent a saving of 2.5 million tonnes of oil equivalent fossil fuel according to official figures of l'ONEE (National Office of Electricity and Potable Water).</p> <p>The IFMERE project is therefore at the heart of environmental challenges and thereby contributes to the challenges in the fight against global warming.</p>
Description of the activities	The project is designed to create three Institutes for Vocational Training in the field of renewable energy and energy efficiency (IFMERE). The aforementioned Institutes will be located in Tanger, Ouarzazate and Oujda. The training program will fit into

		the 2020 Morocco's energy strategy and will meet the competence needs expressed by economic operators
Location		Morocco
Duration implementation period and indicative implementation timetable	i.e. and	<p>Duration: approximately 6 years.</p> <ul style="list-style-type: none"> • Dates of signature of the loans with the beneficiary (Lead Financier and Other co-financing EFIs): Q4 2014 • Target date of signature of EU Delegation Agreement with Lead FI: Q1 2015 • Start of activities financed by the EU grant: January 2015 • End of activities financed by the EU grant : January 2020 • End of project activities: January 2020
Justification/additionality of the EU grant		<p>The Government of Morocco wished to use part of its bilateral envelope PIN 2014 to finance an EU support to this program which is considered to be a priority and which cannot be supported by the state due to the constraint of budget debt.</p> <p>This program will increase the supply of training in a sector with high economic potential as well as it will develop employability and allow an audience (made up of youth and women) access to employment. The project will also develop the attractiveness factor of Morocco for foreign direct investment in the renewable energy sector by improving human capital, both qualitatively and quantitatively. European involvement (EU, AFD, GIZ) will strengthen the development of the mode of governance of innovative vocational training in a growing economic sector.</p>