

# Jobs in Solar PV

## Solar PV for Energy

The demand for renewable energy to meet energy demands and the need for energy security is an opportunity for not only innovation but employment. A recent study by IRENA has shown that there are approximately 5.7 million people employed in the renewable energy sector of this 1.36 million jobs are in solar PV in 2012 globally<sup>1</sup>. Solar is the fastest growing sector in renewables and annual investment in solar globally has eclipsed that of wind since 2010. In the European context, the solar market is rapidly growing, with a positive trend in the number of jobs created in the sector<sup>2</sup>. Ireland has yet to join the Solar PV market; an advantage that allows Ireland to learn from others and develop a sustainable market that supports job growth and meets the population's energy demands.

## Driving Factors:

The main driving force for growth in the solar PV sector is the decreasing costs of technology resulting in lower costs for solar panels, thus driving the demand for solar PV as an alternative energy source<sup>3</sup>. Additional forces include policies for achieving renewable energy targets set at the EU and national levels to meet energy demands and reduce GHG emissions. Trade and investment in solar PV technology are also driving the market.

## Employment Potential

Within the renewable energy sector there are several types of employment created<sup>4</sup>:

- **Direct employment:** Jobs provided by companies directly involved in the core activities pertaining to PV such as, production of PV products, implementation of projects
- **Indirect employment:** Jobs provided by companies that support the core activities of primary companies.
- **Induced employment:** Tertiary employment, jobs generated because the jobs generated by the sector increased purchasing power of people involved in the sector.
- **Long-term employment:** Jobs that are maintained for several years, i.e. operations and management
- **Short-term employment:** Temporary jobs that are generated for specific aspects of the implementation of PV projects, namely manufacturing and construction.

Establishment of a manufacturing subsector is dependent on the demand for solar PV locally, but with the future long-term opportunity to supply the European market.

## Employment in Ireland:

Projections are based on ISEA's projections for Ireland's Solar PV market for the years between 2017 and 2023. The projections assume that the market will start in 2017 with 140 MW and installations will increase until 2019, and then will stabilise with 350 MW added each year. Employment in the sector is calculated using market factor analysis for direct employment and multiplier analysis for indirect employment.

Figure 1. Projected Growth in Solar

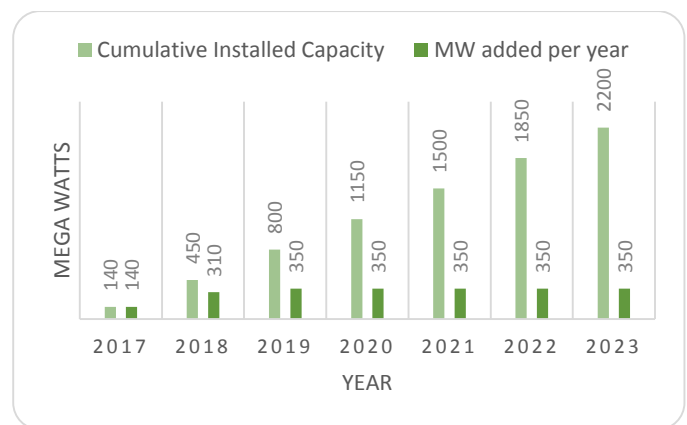
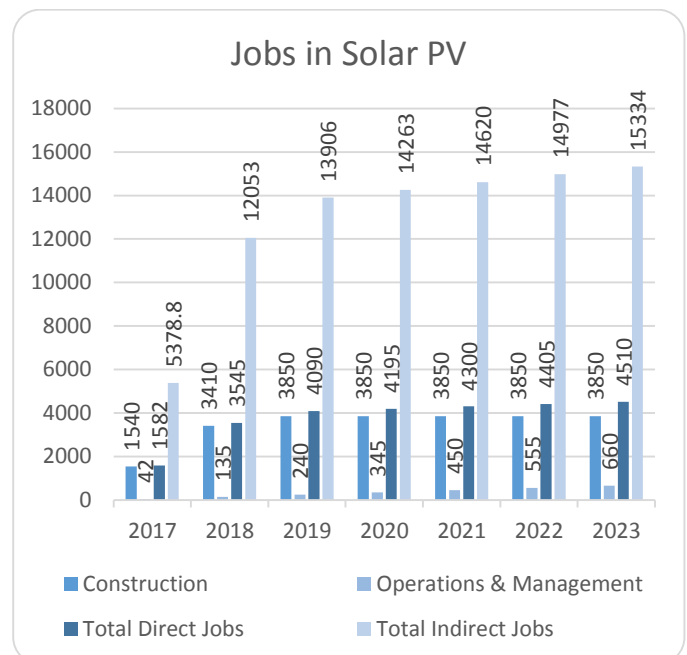


Figure 2. Number of Jobs Created Per Year<sup>5</sup>



<sup>1</sup> IRENA (2013). "Renewable Energy and Jobs"

<sup>2</sup> IRENA (2013); Meyer and Sommer (2014). "Employment Effects of Renewable Energy Supply: A Meta Analysis" Policy Paper NO. 12 WWWFOR.

<sup>3</sup> IRENA (2013); Meyer and Sommer (2014)

<sup>4</sup> IRENA (2013); EPIA (2012) "Sustainability of Photovoltaic Systems",

<sup>5</sup> Direct jobs employment factor 11 for construction for 1 year, 0.3 for operations and management life time of project, indirect jobs multiplier of 3.4 Rutovitz and Harris (2012). "Calculating Global Energy Sector Jobs: 2012 Methodology". Institute for Sustainable Futures.