

GREENTECH - PV Solar Cells

NovaSolar Technologies Fremont R&D Facility



OVERVIEW

NovaSolar retained the services of the IES team to prepare permit and construction documents for a new Thin-Film solar panel R&D facility. Design included the fit-up and hook-up portions of complex custom-built process equipment and new mechanical yard, bulk hydrogen and specialty gas pads. This was a fast track project with design completed for the entire facility in 4 months from start to first permit issuance.

PROJECT DETAILS

- Retrofit (E) building to accommodate R&D spaces, test and metrology labs and mechanical yards.
- Installation of Bulk Cryo Hydrogen, Argon and Nitrogen
- Detached storage specialty gas bunker for increased storage
- Upgrade of existing main electrical services and new distribution systems
- Heat load calcs and HVAC design using existing infrastructure and ductwork

IES SOLUTIONS

- Effective use of City relations and design to permit project on a limited area site
- Minimized capital costs through the incorporation of new systems into existing infrastructure
- Design flexible utilities & process infrastructure, allowing for continued expansion and lower cost of ownership
- Difficult to site Liquid Hydrogen tank w/effective use of Alternate Materials and Means Request
- Reduced permit cycle from 8 weeks to 2 weeks
- Reduced capital investment through the repurposing of used equipment and materials
- Mitigation of heat loads without adding any cooling

LOCATION

Fremont, California

TEAM (PARTNERS)

Architect: TDS Architects

Structural: Peoples Associates

PROJECT DURATION

Design & Permit: 4 months

Construction: 6 months

PROJECT VALUATION

\$5,000,000 - \$10,000,000

ABOUT IES

Integrated Engineering Services (IES) is an established firm providing innovative and cost-effective solutions to meet your complex engineering, design and operational needs.

When experience, knowledge and innovation matter most.

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