Transparent Barrier Films for Bifacial and Flexible PV Modules

PROBLEM:

US based PV module manufacturers rely largely on imported, mass-produced, opaque, polymer films; high barrier transparent films are needed to support the growth of bifacial modules.

SOLUTION:

Dunmore's objective is to develop and commercialize transparent barrier films as a US-based platform for innovation in flexible and bifacial PV.

TEAM:

Dunmore's team has developed over 15000 unique engineered film products over our 50 year history; over 100 yrs. Combined experience; pilot, lab and three high volume mfg. facilities.

PLAN:

Using stage-gate process raw materials – films and adhesives are screened; lab coupons are produced and tested in 3000 hr. damp heat; pilot production of small rolls for prototyping; production assets used to product full size materials for field testing.

WHY DUNMORE, WHY NOW

Imported mass-produced films do not provide the transparency and barrier properties needed to support the growth in bifacial module production and flexible modules

- Over 15000 unique product developments over 50 yr. history
- Over 10 years in PV materials with 35 listed UL backsheets
- Stage Gate Process for New Product Development
- Complete Lab, Pilot and High Volume Production Capabilities
- Collaborative focus to support US industrial growth

TECHNICAL ASSISTANCE & DELIVERABLES

Funding will be used to screen and select polymer films and adhesive systems and produce prototype quantities of materials that can be shared with selected academic, commercial and government customers.