
# BY SOLAR+

Kenneth Aloysius | WeiZheng Ong | Jonathan Lim

# THE TEAM

Legal & Marketing

Design & Engineering

Dev

# PROBLEM

- Have you ever seen solar panels on a neighbour’s roof and wondered what it would take to install one of those?
- People are unaware of the benefits that solar power can bring for them
    - Considerable monetary benefits - rebates, electricity savings, selling power back to grid

# SOLAR+?

- Make people understand and want solar panels and renewable energy sources and technologies
- Drive up adoption of solar cell technology
- Gather data useful for predictive and research purposes

# HOW?

- Crowdsourced data from smartphones
  - Ambient light sensor - measure light intensity
  - Correlated with energy available from solar panels
- Help people understand and make it easier for them to adopt solar cell technology
  - Display estimated solar panel output and potential savings

# HOW?

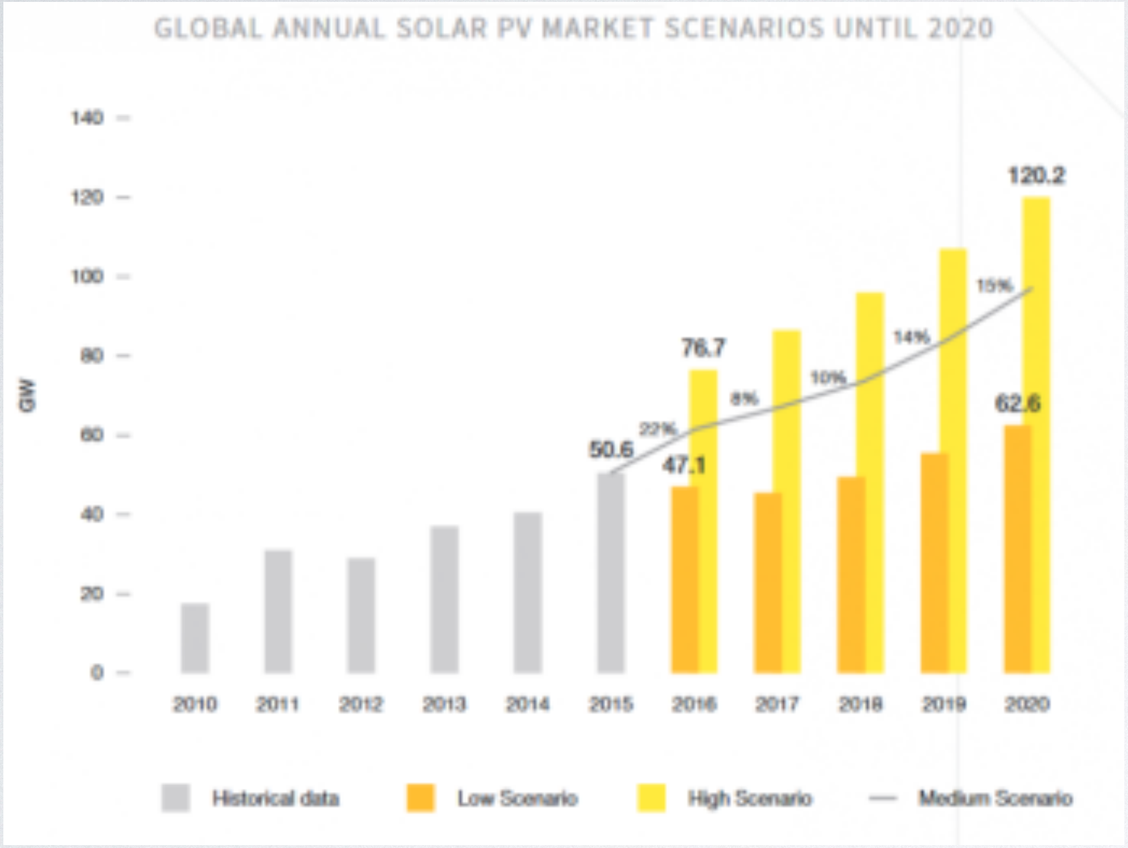
- Convenience and user choice
  - Streamlined purchasing process for solar panels


# TECH DEMO

Mobile app MVP

# TECH

- Machine learning - Azure ML
  - Predicts solar panel outputs based on weather conditions, time-of-day, seasons
  - Crowdsourced data used to improve model
- Android app
- Current version is MVP - many features will be added (storefront, product showcases, infographics and explanatory pages, legal notes)


GLOBAL ANNUAL SOLAR PV MARKET SCENARIOS UNTIL 2020
GW
140
120
100
80
60
40
20
0
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
50.6
47.1
76.7
62.6
120.2
22%
8%
10%
14%
15%
Historical data
Low Scenario
High Scenario
Medium Scenario


SOLAR ACTION ALLIANCE
YEARLY NET RETURNS PURCHASE

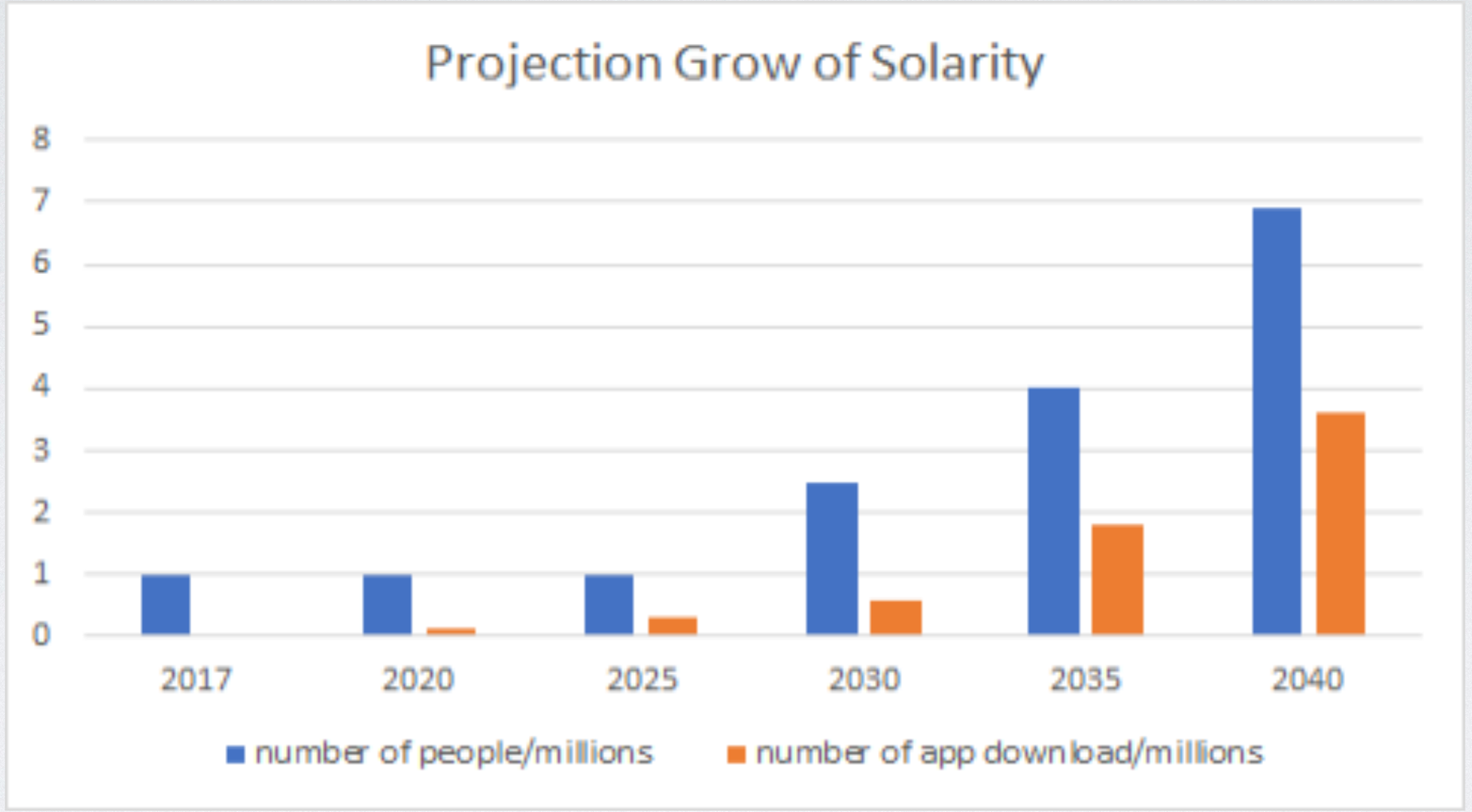
# SOLAR INDUSTRY

- Global: falling costs, increasing efficiency, increasing popularity
- Local industry
  - Case study - Hawaii
  - NASA’s Hawaii Space Exploration Analog and Simulation V (HI-SEAS V): Mars-like environment, solar panel as main power source

# PROJECTIONS

- Global: projected to grow from 76.7GW to 120.2 GW from year 2016 to 2020
- Local (Hawaii): both state tax credit and federal tax credit for solar panel installations
  - over $70,000 for its owner within 25 years
- Target market: residential homeowners
- Mature market overseas, but rapid growth (with no signs of slowing down)

# PROJECTIONS



# EXECUTION - 3 PHASES

- Phase 1: startup - months 1-4
  - Refine MVP to production-ready release
  - Trial
  - Intermediary between solar panel suppliers and consumers
  - Marketing

# EXECUTION - 3 PHASES

- Phase 2: growth - months 4-28
  - Increased capital flows
  - Expanding to new markets (Oceania)
  - Marketing and selling data
  - Diversification

# EXECUTION - 3 PHASES

- Phase 3: evolution - month 28+
  - Purchase panels, provide rental, purchasing schemes
  - Expand to R&D, become end-to-end solar company

# WE NEED...

- $50,000 for Phase 1 over the next 4 months
- Capital for:
  - Hiring advertising/marketing consultants, graphic designers
  - Expand development team
  - Research - improve predictions and increase dataset size


S
SOLARITY

# BUSINESS MODEL

- Key partners
  - Solar companies (producers and suppliers), government departments, scientists, research institutes, business owners
- Key activities
  - Marketing, data collection, market research, distribution of panels
- Key resources
  - Existing data, data collected from users, customers, marketing materials

# BUSINESS MODEL

- Value propositions
  - Predictive technology
  - Easy to understand information
  - Convenience
- Customer relationships
  - Feedback via app, social media, membership, customer service
- Channels
  - App Store/Play Store, renewable energy providers, government departments

# BUSINESS MODEL

- Customer segments
  - Residential (primary customer), landlords, small business owners, scientists
- Cost structure
  - Solar panels, app development, data science, transport, installation, storage, wages

# BUSINESS MODEL

- Revenue stream
  - Big data: sell off data
  - Data analytics, predictive services - free tier/paid APIs
  - Commissions
  - Rentals