

*BlockChain*



# Solarnity

## Transact in Trust



*Supply  
Chain*

# What's On?



- ◆ Platform of trust for Supply Chain vendors and buyers
- ◆ Eliminate bank guarantees
- ◆ Free-up working capital
- ◆ Improve SME profitability



## What's Brewing?

### Dark Roast

Solarnity will utilize distributed ledger technology to improve buyer-supplier payment processes by significantly reducing, and eventually eliminating, the use of bank guarantees, letters of credit, bank performance bonds and related third party trade finance instruments utilized extensively in cross border supply chain transactions.

### Medium Blend

Solarnity will disrupt the SME supply chain for the procurement of equipment, materials, supplies, services and spare parts needed in such cross border energy projects, commissioning / operating industrial plants and a wide variety of projects that expand international borders.

### Light Breakfast

Solarnity will allow SME cost reduction, efficiency improvements and on-time delivery that will reduce the cost-to-serve for each transaction while increasing customer satisfaction, transparency and market share.

# The Players

**Vendors.** Businesses seeking to sell equipment, materials or supplies to cross-border entities will upload key features of its products onto the Solarnity platform. Vendors will be encouraged to ensure their stock is equipped with Internet of Things (“IoT”) connected devices for real time tracking and monitoring on the Solarnity platform

**Buyers.** Businesses seeking to procure equipment, materials or supplies from vendors located in various cross-border locations. Buyers will identify original equipment manufacturers (OEM's), vendors and suppliers to procure equipment, spare parts or materials. Buyers will upload key details for Smart Contract development to be negotiated conditions set with the Vendor.

### Smart Contracts

- ✓ Unique to each transaction
- ✓ Tailored terms and conditions including built-in dispute resolution code
- ✓ Multi-sig features for contracts w/ different release dates for multiple addresses (ie. Originator seeks to ship to multiple sites)
- ✓ Hash tags and time stamp operation will verify authenticity of digitized uploads (custom clearance certificates, delivery notes, OEM manuals, warranty)

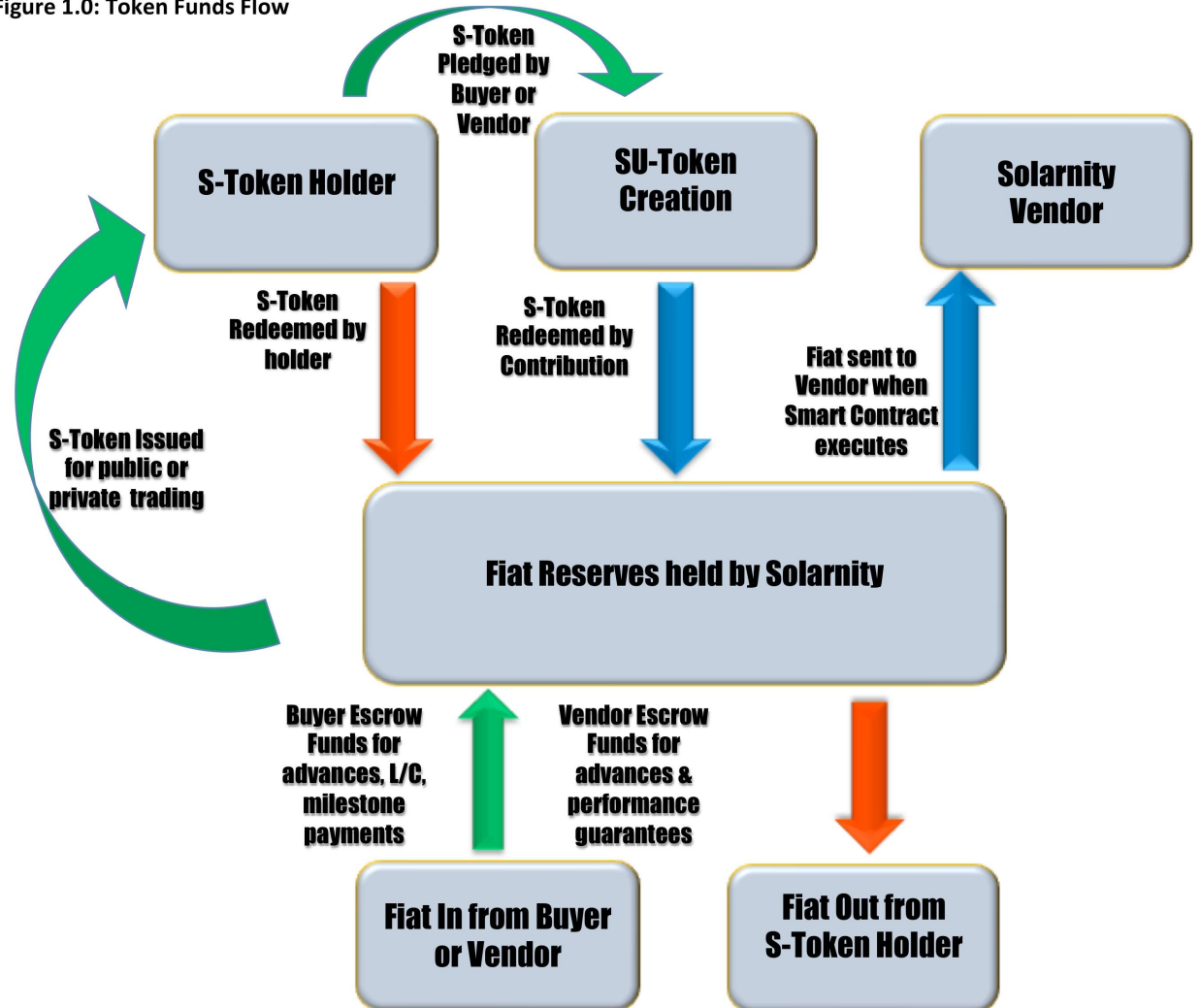
## What's in the Code?

### Solarnity Tokens

- ✓ Main token ("S-Token") utilizes the Ethereum ERC20 token protocol
    - Exchange with any crypto currency at market rate
    - Fee payment & incentivize miners to store/retrieve data
  - ✓ Utility token ("SU-Token") under the Ethereum ERC-721 protocol
    - SU-Token required to ensure adherence to Smart Contract terms / conditions
    - Convertible (& pegged) to a Tether currency (USD). Exists on sidechain and not traded on main Blockchain
- At contract termination, SU-Token converted back to fiat currency & destroyed

# Funds Flow

Figure 1.0: Token Funds Flow



# Typical Supply Chain transaction

The case study compares a typical transaction on the Solarnity platform:

Figure 2.0 | Key metrics of typical procure to pay cycle

Figure 2.1 | Key metrics for the Buyer

Figure 2.2 | Key metrics for the Vendor/Supplier

Figure 2.0: Key metrics from a typical cross-border transaction | Order of specialized equipment from Germany to Qatar

	Typical	Solarnity
Value of transaction (USD equivalent)	\$ 500,000	\$ 500,000
<b>Procure to pay cycle</b>		
Contracting time from order generation to invoicing (including bank guarantee arrangement)	1 - 2 months	1-2 weeks
Manufacturing / delivery time	up to 6 months	up to 6 months
Tokenization fee (from 0.1% to 0.5% of contract value)	Nil	\$500 to \$2500
Working capital costs (both parties)	\$ 40,000	Negotiable
Bank guarantee costs (both parties)	\$ 4,700	Nil
Legal fees (both parties)	\$ 10,000	Nil
Total funds ring-fenced before product delivery	\$ 750,000	Negotiable

# Typical Supply Chain transaction

(continued)

Figure 2.1: Buyer | key metrics

	Typical	Solarnity
<b>BUYER</b>		
Cost of working capital: assume 6 months @8% APR	\$ 20,000	Negotiable
Advance payment (50%)	\$ 250,000	P2P negotiable
Balance payment (50%); upon completion of manufacturing but before delivery	\$ 250,000	Negotiable
Legal advisers to review terms and conditions of ABG & BPG	\$ 5,000	Nil

Figure 2.2: Vendor | key metrics

	Typical	Solarnity
<b>VENDOR/SUPPLIER</b>		
Cost of working capital: assume 6 months @8% APR	\$ 20,000	Negotiable
<b>Advance bank guarantee (ABG)</b>		
Duration	6 months	Negotiable
Equivalent to Buyer advance	\$ 250,000	Negotiable
Funds held with 3rd party bank	Yes	No
Monthly fee (as a %)	0.250%	Nil
6-month fee (amount)	\$ 3,750	Nil
Legal advisers	\$ 5,000	Nil
<b>Bank performance guarantee (BPG)</b>		
Duration	12 to 18 months	Negotiable
Amount (10%)	\$ 50,000	Negotiable
Funds held in trust	No	No
Monthly fee (as a %)	0.163%	Nil
Annual fee (amount)	\$ 976	Nil
Legal advisers	Depends	Nil

# The Addressable Market



Global shipping & logistics value was \$8.1 trillion in 2015; expected to grow to \$15.5 trillion by 2023



Global trade finance exceeds \$2 trillion annually



MENA population exceeds 430 million; 2016 GDP was \$3.1 trillion



China & US rank 1st and 2nd in global manufacturing w/ combined annual output nearly \$4 trillion



WTO estimates 80% of global trade is financed by credit-like facilities; SME's face biggest challenge as over half of trade finance requests rejected



The IMF recently upgraded its forecasts of global GDP growth to 3.9 per cent for 2018 and 2019

















Robust performance in Euro area set to continue in 2018 and 2019 with growth of 2.3% and 2.0% respectively

# Solarnity's Pie Slice

Illustrative samples represent actual or planned costs (in US dollars) of constructing major industrial & infrastructure projects. Solarnity potential share of Supply Chain transactions and token fees conservatively low

	Gross Costs	Equipment / Machinery only		Solarnity Platform		
	100%	As as %	In US Dollars	Onboard 0.1% to 20%	Fee Revenue 0.01%	Fee Revenue 0.05%
Wheatstone LNG Off-shore; Western Australia (8.9 metric tonnes)	\$ 22,308,000,000	40%	\$ 8,923,200,000	\$ 89,232,000	\$ 89,232	\$ 446,160
Power generation   Greenfield install gas plant 1.4GW capacity (Iraq)	\$ 1,000,000,000	40%	\$ 400,000,000	\$ 20,000,000	\$ 20,000	\$ 100,000
Polysilicon plant   20,000 metric tonne/year (South Korea)	\$ 750,000,000	40%	\$ 300,000,000	\$ 60,000,000	\$ 60,000	\$ 300,000
Oil Refinery and tank farm   3500MT/day (UAE)	\$ 656,250,000	40%	\$ 262,500,000	\$ 52,500,000	\$ 52,500	\$ 262,500
Construction waste to energy plant   2000 tonnes of waste / day   65MW power (UAE)	\$ 615,000,000	40%	\$ 246,000,000	\$ 49,200,000	\$ 49,200	\$ 246,000
Oil & Gas platform (offshore Black Sea, Turkey)	\$ 250,000,000	40%	\$ 100,000,000	\$ 20,000,000	\$ 20,000	\$ 100,000
Power generation   Brownfield refurbish small plant 22MW capacity	\$ 150,000,000	40%	\$ 60,000,000	\$ 12,000,000	\$ 12,000	\$ 60,000
Residential housing compound   200 villas (Dubai)	\$ 100,000,000	35%	\$ 35,000,000	\$ 7,000,000	\$ 7,000	\$ 35,000
Oil Refinery and tank farm   250MT/day (Morocco)	\$ 37,500,000	40%	\$ 15,000,000	\$ 3,000,000	\$ 3,000	\$ 15,000
Container ship   60000 dwt bulk carrier (Japan)	\$ 33,500,000	40%	\$ 13,400,000	\$ 2,680,000	\$ 2,680	\$ 13,400
Primary / Secondary School campus   21000 m3 (UAE)	\$ 30,000,000	35%	\$ 10,500,000	\$ 2,100,000	\$ 2,100	\$ 10,500
Solar farm (24MW in Kitsuki, Japan - install cost of \$1.10 / watt)	\$ 26,400,000	50%	\$ 13,200,000	\$ 2,640,000	\$ 2,640	\$ 13,200
Drilling of exploration oil well in Egypt (2500 meters)	\$ 11,500,000	40%	\$ 4,600,000	\$ 920,000	\$ 920	\$ 4,600

# Comparative Analysis

		SHIPCHAIN	 Waltonchain	 Sweetbridge	
	Solarnity	ShipChain	WaltonChain	Sweetbridge	OriginTrail
Blockchain to drive platform					
Vendor and Buyer driven platform		X	X	X	X
Smart Contracts drive transactions		X	X	X	X
Working Capital funding available	TBD	X	X		X
Bank guarantees eliminated		X	X	X	X
Decentralized file storage solution	TBD	TBD	TBD	TBD	TBD
IT solution for supply chain applications	X			X	



## Road Map



### MVP

CTO / Tech Advisor to write core smart contract code and token development stored in GitHub repo for minimum viable product (MVP)

### Seed Funding

MVP demo uploaded to website with basic wireframes to walkthrough typical transaction with Blockchain-focused VC's

### Alpha / Beta

Programming, testing & going live w/ WebApp & mobile application including Alpha tests, stability tests, market and user analysis. Beta phase transition to product launch



# The Team

**Founder, CEO**  
**Allen Wazny, CA**

**CFO with 20+  
years emerging  
market  
experience in  
energy sector.  
BlockChain  
enthusiast since  
late 2017**

**Founder, COO**  
**Dustin Pierce**  
**CA, CFA**

**Manages \$280  
million private  
wealth portfolio  
with cross border  
investment  
lending and  
offshore fund  
structures**



# The Advisors

Alex Berson  
New York,  
USA

Alex is an expert in  
cyber security and  
cloud computing.

Alex held key  
positions in  
JPMorgan Chase,  
BearingPoint, Merrill  
Lynch, PWC, and  
Solomon Smith  
Barney

Max von Romatowski  
(Singapore)

Max has been  
Managing Director of  
SolarWorld Asia  
Pacific since 2007,  
Max holds a Bachelor  
of Law degree from  
University of Hamburg  
and an MBA from  
ESCP-EAP

Bruce Gaston  
(UK)

Bruce is  
CFO/Director of  
Darmen Technology  
& Solutions (US)  
and a strategic  
adviser to Blockex  
during their recently  
completed \$30m  
ICO

Boris  
Grozev  
Dubai, UAE

Boris is Bloomberg  
Country Head, in  
Dubai. Boris has a  
Masters in  
International  
Management from  
the University of  
Strathclyde in  
Glasgow, Scotland.

# The Advisors / cont.

Stephen Polakoff  
Legal Adviser

Legal adviser to decentralized shopping platform with planned €15-20m ICO. Lead counsel for UAE property group and a listed Russian oil field services company

BlockChain & ICO  
specialist (under  
NDA)

Lead developer for ICO candidate with nearly 20 years of software development; includes 2 years programming Solidity smart contracts