

IRENA 13 5 2016

http://beyondboundaries.nl



We are Kamangir: "Architects of the future". We are scientists, philosophers and artists. We create visions with а transgenerational scope, define transition paths towards them and develop **models** to support them. We put the question before the answer. We go **BEYOND** lobby, beyond political, commercial or other gain. We work for the future, and empower influencers today to build legacies that their successors can proudly continue building upon. We believe in **walue** over volume, in an economy of natural abundance, backed by a culture of empowerment. This enables equal and **truly democratic** rights for every human being, and empowers to create true and sustainable wealth for all. Vision. Purpose. Action. Kamangir.





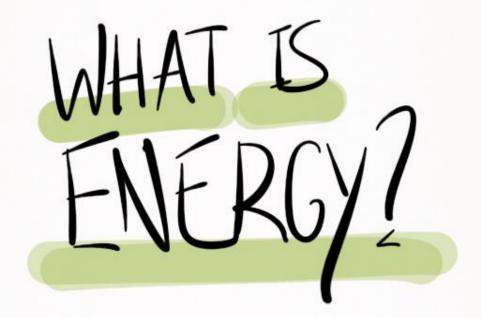


WELL ...



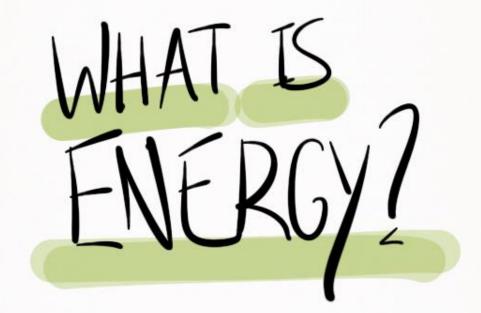
WELL ...

















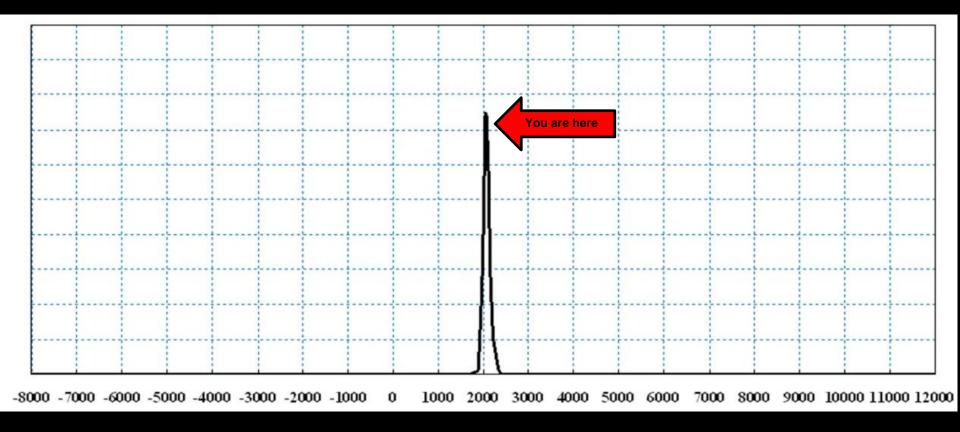












Fossil fuel consumption (8000BC to 12000AD)

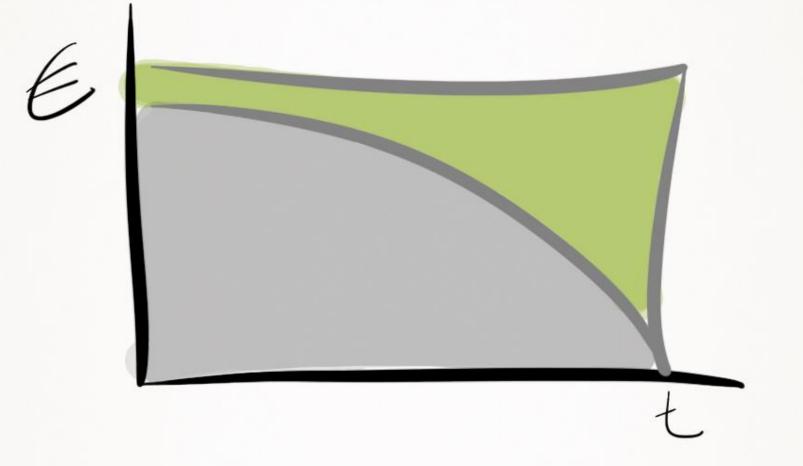
the transition to a world that runs on 100% renewable resources is not a choice, it is an inevitability "YOU NEVER CHANGE THINGS BY FIGHTING THE EXISTING REALITY. TO CHANGE SOMETHING, BUILD A NEW MODEL THAT MAKES THE EXISTING MODEL OBSOLETE."

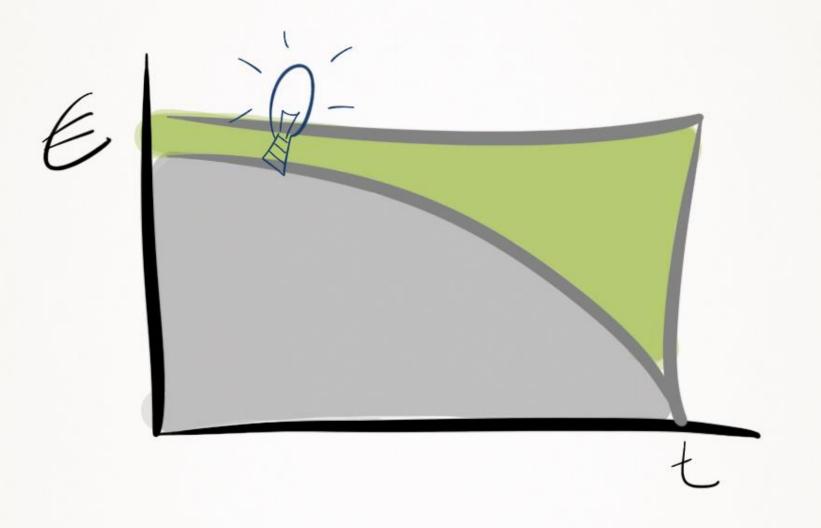
- BUCKMINSTER FULLER

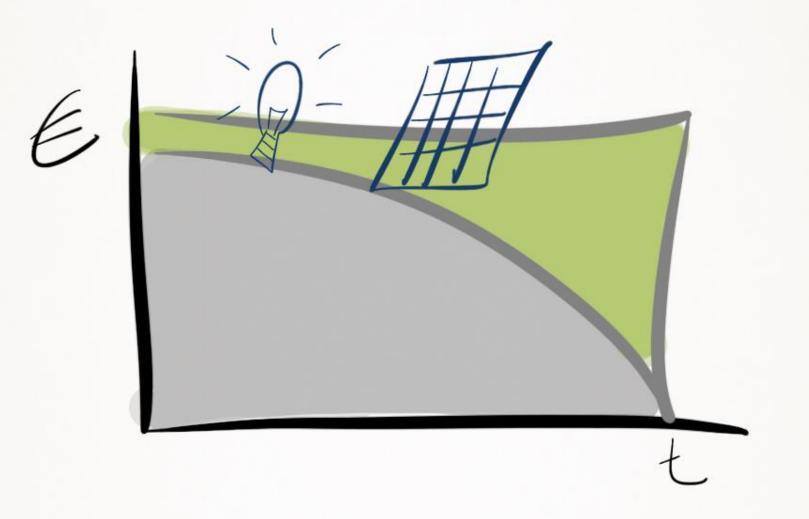
Path to Zero

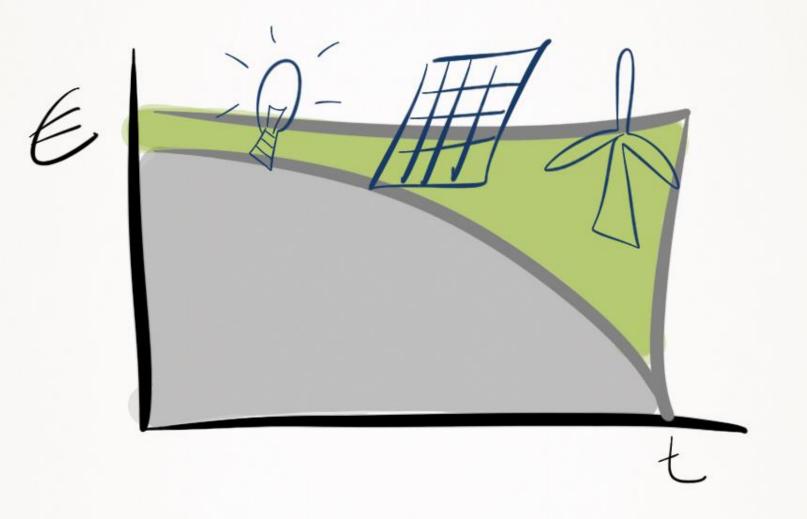
GOAL	A supplier that earns more through selling less energy. An energy transition path that finances itself
WHAT	Algorithms calculate in which order which measures should be taken on the path to energy independence. Savings on each measure build up to finance and execute every next step on the Path to Zero
Status Quo	PROFIT THROUGH VOLUME-SELLING IS BIG, BUT PASSÉ. PROFIT THROUGH CREATING VALUE HAS THE FUTURE. FIRST PTZ-COMPANY WAS FOUNDED IN 2010 AND EARNS MORE AS IT SELLS LESS ENERGY
Імраст	25% ENERGY SUPPLY REDUCTION PER CUSTOMER IN THE FIRST 4 YEARS, WHILE KEEPING THE ENERGY BILL AT THE SAME LEVEL. A WIN-PLAN FOR EVERY STAKEHOLDER. CURRENTLY MILLIONS OF KWH AND TONS OF CO2 SAVED
TIME LINE	DESIGNED IN 2008, FOUNDED IN 2010, AWARDED BY MIT IN 2014, INTERNATIONALIZING NOW THROUGH A NUMBER OF UTILITIES











AND THERE IS MORE

ENERGY BLOCKCHAIN	BLOCKCHAIN-BASED TECHNOLOGY TO VALIDATE PEER-TO-PEER ENERGY TRANSACTIONS IN SMART GRID ENVIRONMENTS
Gener8	PV-TO-PV: DEVELOPING THE TECHNOLOGY TO TURN OLD AND DAMAGED SOLAR PANELS INTO NEW ONES
Africa Aikido	Turning electronic waste landfills into renewable energy plants through urban mining
ENERGY AS A CURRENCY	DIGITAL CURRENCY MODELS FOR RENEWABLE ENERGY ECONOMIES – DEMOCRATIZATION OF VALUE CREATION
Fair Grids	Blockchain-validation of energy transfers between 10 KV-substations and High- voltage grid. Enables 100% energy transfer validation. Savings in NL will amount to 1,3 TWH / 1,2% of electricity needs / >100m € per annum
METERLESS METERING	ALGORITHMS ENABLE USERS TO RECOGNIZE AND REGULATETHE "FINGERPRINT" CONSUMPTION OF EVERY APPLIANCE, AND REGULATE THEIR NEEDS IN DIRECT CONNECTION TO THEIR GRID OPERATOR



COMMIT2DATA

national Big Data research and innovation program



Opportunities for data & energy

Some developments have world-wide impact potential:

- photonics
- blockchain
- energy data-disaggregation
- peer to peer energy exchange
- real-time energy pricing
- sensorics & algorithmics
- quantum computing

Who's leading the way?







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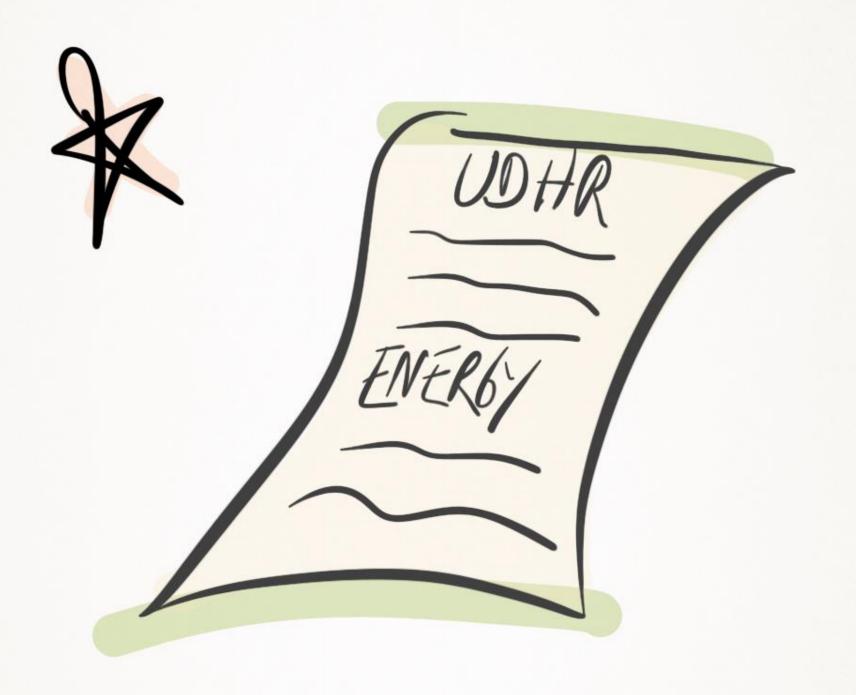
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"let your vision be world-embracing"

kamangir

Twitter:@arashaazLinkedIn:Arash AazamiPhone:+31 6 2973 8403Mail:arash@aazami.com