

# Urban Sustainability R&D e-Symposia 2021: Innovating for a Sustainable Future

## ClimaControl Quantum Resonance Water (QRW)

*The next revolution in  
cooling tower water  
treatment technology*



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(SINGAPORE)



### Certificate of Achievement

This certificate is presented to

Climatec Corp Pte Ltd

For having been selected as the winner of the

**Most Innovative Award**

for the Capitaland Sustainability X Challenge 2021,

with its submission:

ClimaControl Quantum Resonance Water - Revolution in cooling tower  
water treatment

  
Lee Chee Koon  
Group Chief Executive Officer  
Capitaland Group



  
Lynette Leong  
Chief Sustainability Officer  
Capitaland Group

# AGENDA

- ✓ Who We Are
- ✓ Inspiration behind the innovation
- ✓ From idea to prototype
- ✓ The CapitaLand Sustainability X Challenge Journey



# WHO WE ARE

## *Introduction to Climatec Corp:*



- ✓ Founded and incorporated in 2011 as a private company in Singapore by 4 individuals with diverse backgrounds in engineering, corporate BD, private equity and marketing
- ✓ Focus on environmental engineering and clean technology to provide innovative, state-of-the-art and economically viable solutions that work towards safeguarding and promoting sustainable build environments
- ✓ Secured 1<sup>st</sup> tranche of private investment by Hermes-Epitek Corp (Taiwan) in 2012
- ✓ 3 core focus areas:



ENERGY & WATER  
EFFICIENCY, CLEANTECH



ENVIRONMENTAL CONTROL  
& MONITORING



BUILDING  
INFRASTRUCTURE

# INSPIRATION BEHIND THE INNOVATION

## *Borne out of the following:*

- ✓ There is a gap between what the market needs and what is available
- ✓ Current market offerings for water treatment face limitations and challenges
- ✓ Poor performance of current market offerings also result in instances of increased operating expenditure and unplanned capital expenditure for end users
- ✓ Users face a conundrum for the lack of a clear and viable solution

# FROM IDEA TO PROTOTYPE

*Simple, straightforward, no-brainer*



**Value proposition  
of the QRW is  
simple and  
straightforward...  
and raises the bar  
to unprecedented  
standards for  
cooling tower  
water treatment**

**Chemical  
Free  
Treatment**



**Requires  
No power  
to operate**



**Saves  
water from  
blowdown**



**Saves  
Energy on  
Chiller Ops**



**Reduces  
maintenance  
costs**



**Recycle  
water**



*Provides constant  
& consistent  
treatment, **NO**  
mechanical or  
electrical failure  
risk*

*Exceed Green Mark  
Building  
Requirements of 7  
cycles of  
concentration  
(COC) - All QRW  
sites operate **20 to  
>30 COC***

# THE CAPITALAND SUSTAINABILITY X CHALLENGE JOURNEY

## Key learnings from the CSXC mentorship program

### Psychological and technical aspects of presentation skills

Be humble, be bold to try, and be persistent until positive changes are evident

#### 5 + 1 Elements to a good pitch

- ▶ Clarity
- ▶ Conviction
- ▶ Positivity
- ▶ Authenticity
- ▶ Humility
- ▶ +1 Likability



#### Credits to:

- ▶ David Lee, Principal Trainer, Luminaries Lab Pte Ltd
- ▶ Melissa Ho, Vice President, Wavemaker Partners
- ▶ The CapitaLand Mentor Team

**Marketing pitch is not a one-size-fits-all...**

**Bespoke to address the needs and value drivers of the targeted audience...**

# THE CAPITALAND SUSTAINABILITY X CHALLENGE JOURNEY

*The QRW value proposition meets all 3 CSXC Focus Areas & more...*

## 1. WATER CONSERVATION & RESILIENCE

80% to over 90% **water savings** from blowdown of existing system

## 2. LOW CARBON TRANSITION

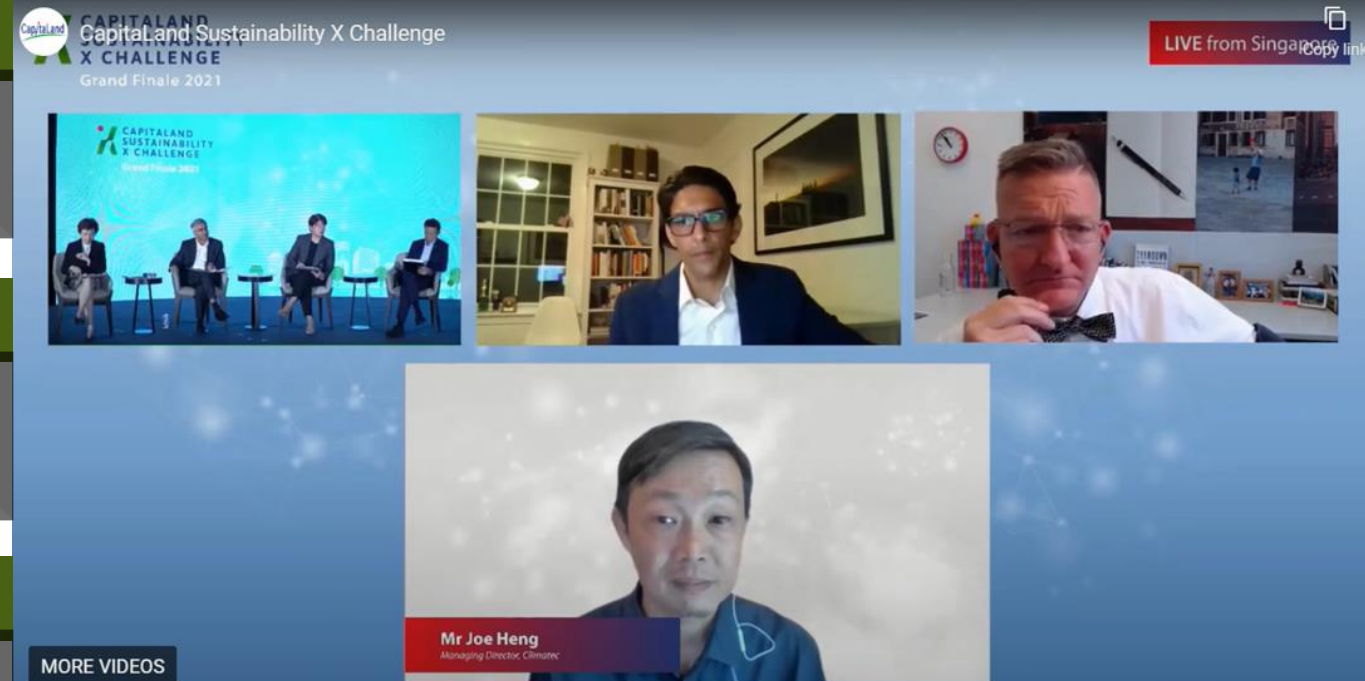
1% to over 5% **energy savings** from associated chiller systems operations improvement

## 3. WASTE MANAGEMENT & CIRCULAR ECONOMY

**QRW Water is Recyclable** for plant irrigation & toilet flushing

## + REDUCES MAINTENANCE & LABOUR COSTS

**Avoided cost** on reduced frequencies of cooling tower & condenser tube cleaning - 30% to over 50% reduction



*Reliable, safe, sustainable and benchmark setting savings meeting all focus areas*

*Payback range: 18-36 months depending on site conditions and operations*

**THE END**



***THANK YOU***



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