



Recharge

# Smart Contract Audit Report

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## Disclaimer

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# AUDITED DETAILS

## Audited Project

Project name	Token ticker	Blockchain
Recharge	RCG	Binance Smart Chain

## Addresses

Contract address	0x2d94172436d869c1e3c094bead272508fab0d9e3
Contract deployer address	0x3c2465d88C6546eac6F9aa6f79081Ad874CA2E8b

## Project Website

<https://www.therecharge.io/>

## Codebase

<https://bscscan.com/address/0x2d94172436d869c1e3c094bead272508fab0d9e3#code>

# SUMMARY

The Recharge is A decentralized incentive solution that connects electric-charging platforms. The Recharge aims to provide a long-term sustainable decentralized ecosystem that can help maximize participating users' incentives.

## Contract Summary

### Documentation Quality

Recharge provides a very good documentation with standard of solidity base code.

- The technical description is provided clearly and structured and also dont have any high risk issue.

### Code Quality

The Overall quality of the basecode is standard.

- Standard solidity basecode and rules are already followed by Recharge with the discovery of several low issues.

### Test Coverage

Test coverage of the project is 100% ( Through Codebase )

## Audit Findings Summary

- SWC-100 SWC-108 | Explicitly define visibility for all state variables on lines 490.
- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 293, 311, 332, 359, 360, 379, 380, 402, 403, 521, 522, 523, 523, 524, 524, 533, 535, 536, 537, 559, 562, 564, 565, 567, 579, 587, 595, 607, 608, 617 and 522.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 16, 93, 117 and 144.

## CONCLUSION

We have audited the Recharge project released on July 2021 to discover issues and identify potential security vulnerabilities in Recharge Project. This process is used to find technical issues and security loopholes which might be found in the smart contract.

The security audit report provides satisfactory results with low-risk issues.

The issues found in the Recharge smart contract code do not pose a considerable risk. The writing of the contract is close to the standard of writing contracts in general. The low-risk issues are arithmetic operation issues, a floating pragma is set, and a state variable visibility is not set. The current pragma Solidity directive is `^0.8.0`. Specifying a fixed compiler version is recommended to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code. It is best practice to set the visibility of state variables explicitly. The default visibility for `_totalSupply` is internal. Other possible visibility settings are public and private.

# AUDIT RESULT

Article	Category	Description	Result
Default Visibility	SWC-100 SWC-108	Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously.	ISSUE FOUND
Integer Overflow and Underflow	SWC-101	If unchecked math is used, all math operations should be safe from overflows and underflows.	ISSUE FOUND
Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.	PASS
Floating Pragma	SWC-103	Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly.	ISSUE FOUND
Unchecked Call Return Value	SWC-104	The return value of a message call should be checked.	PASS
Unprotected Ether Withdrawal	SWC-105	Due to missing or insufficient access controls, malicious parties can withdraw from the contract.	PASS
SELFDESTRUCT Instruction	SWC-106	The contract should not be self-destructible while it has funds belonging to users.	PASS
Reentrancy	SWC-107	Check effect interaction pattern should be followed if the code performs recursive call.	PASS
Uninitialized Storage Pointer	SWC-109	Uninitialized local storage variables can point to unexpected storage locations in the contract.	PASS
Assert Violation	SWC-110 SWC-123	Properly functioning code should never reach a failing assert statement.	PASS
Deprecated Solidity Functions	SWC-111	Deprecated built-in functions should never be used.	PASS
Delegate call to Untrusted Callee	SWC-112	Delegatecalls should only be allowed to trusted addresses.	PASS

DoS (Denial of Service)	SWC-113 SWC-128	Execution of the code should never be blocked by a specific contract state unless required.	PASS
Race Conditions	SWC-114	Race Conditions and Transactions Order Dependency should not be possible.	PASS
Authorization through tx.origin	SWC-115	tx.origin should not be used for authorization.	PASS
Block values as a proxy for time	SWC-116	Block numbers should not be used for time calculations.	PASS
Signature Unique ID	SWC-117 SWC-121 SWC-122	Signed messages should always have a unique id. A transaction hash should not be used as a unique id.	PASS
Incorrect Constructor Name	SWC-118	Constructors are special functions that are called only once during the contract creation.	PASS
Shadowing State Variable	SWC-119	State variables should not be shadowed.	PASS
Weak Sources of Randomness	SWC-120	Random values should never be generated from Chain Attributes or be predictable.	PASS
Write to Arbitrary Storage Location	SWC-124	The contract is responsible for ensuring that only authorized user or contract accounts may write to sensitive storage locations.	PASS
Incorrect Inheritance Order	SWC-125	When inheriting multiple contracts, especially if they have identical functions, a developer should carefully specify inheritance in the correct order. The rule of thumb is to inherit contracts from more /general/ to more /specific/.	PASS
Insufficient Gas Griefing	SWC-126	Insufficient gas griefing attacks can be performed on contracts which accept data and use it in a sub-call on another contract.	PASS
Arbitrary Jump Function	SWC-127	As Solidity doesnt support pointer arithmetics, it is impossible to change such variable to an arbitrary value.	PASS

Typographical Error	SWC-129	A typographical error can occur for example when the intent of a defined operation is to sum a number to a variable.	PASS
Override control character	SWC-130	Malicious actors can use the Right-To-Left-Override unicode character to force RTL text rendering and confuse users as to the real intent of a contract.	PASS
Unused variables	SWC-131 SWC-135	Unused variables are allowed in Solidity and they do not pose a direct security issue.	PASS
Unexpected Ether balance	SWC-132	Contracts can behave erroneously when they strictly assume a specific Ether balance.	PASS
Hash Collisions Variable	SWC-133	Using <code>abi.encodePacked()</code> with multiple variable length arguments can, in certain situations, lead to a hash collision.	PASS
Hardcoded gas amount	SWC-134	The <code>transfer()</code> and <code>send()</code> functions forward a fixed amount of 2300 gas.	PASS
Unencrypted Private Data	SWC-136	It is a common misconception that private type variables cannot be read.	PASS



# SMART CONTRACT ANALYSIS

Started	Tuesday Jul 13 2021 09:43:58 GMT+0000 (Coordinated Universal Time)
Finished	Wednesday Jul 14 2021 15:37:16 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	RCG.sol

## Detected Issues

ID	Title	Severity	Status
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+=" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+=" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+=" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+=" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-=" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged

SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged

<b>SWC-101</b>	ARITHMETIC OPERATION "-" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	ARITHMETIC OPERATION "+" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	ARITHMETIC OPERATION "-" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	ARITHMETIC OPERATION "-" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	ARITHMETIC OPERATION "-" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-101</b>	COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED	<b>low</b>	acknowledged
<b>SWC-103</b>	A FLOATING PRAGMA IS SET.	<b>low</b>	acknowledged
<b>SWC-103</b>	A FLOATING PRAGMA IS SET.	<b>low</b>	acknowledged
<b>SWC-103</b>	A FLOATING PRAGMA IS SET.	<b>low</b>	acknowledged
<b>SWC-103</b>	A FLOATING PRAGMA IS SET.	<b>low</b>	acknowledged
<b>SWC-108</b>	STATE VARIABLE VISIBILITY IS NOT SET.	<b>low</b>	acknowledged

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 293

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
292   require(currentAllowance >= amount, "ERC20: transfer amount exceeds allowance");
293   _approve(sender, _msgSender(), currentAllowance - amount);
294
295   return true;
296   }
297
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 311

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
310  function increaseAllowance(address spender, uint256 addedValue) public virtual
returns (bool) {
311  _approve(_msgSender(), spender, _allowances[_msgSender()][spender] + addedValue);
312  return true;
313  }
314
315
```

## SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 332

### low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

### Source File

- RCG.sol

### Locations

```
331   require(currentAllowance >= subtractedValue, "ERC20: decreased allowance below
zero");
332   _approve(_msgSender(), spender, currentAllowance - subtractedValue);
333
334   return true;
335   }
336
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 359

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
358   require(senderBalance >= amount, "ERC20: transfer amount exceeds balance");
359   _balances[sender] = senderBalance - amount;
360   _balances[recipient] += amount;
361
362   emit Transfer(sender, recipient, amount);
363
```

# SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 360

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
359  _balances[sender] = senderBalance - amount;  
360  _balances[recipient] += amount;  
361  
362  emit Transfer(sender, recipient, amount);  
363  }  
364
```



## SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 379

### low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

### Source File

- RCG.sol

### Locations

```
378
379  _totalSupply += amount;
380  _balances[account] += amount;
381  emit Transfer(address(0), account, amount);
382  }
383
```

# SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 380

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
379     _totalSupply += amount;
380     _balances[account] += amount;
381     emit Transfer(address(0), account, amount);
382 }
383
384
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 402

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
401   require(accountBalance >= amount, "ERC20: burn amount exceeds balance");
402   _balances[account] = accountBalance - amount;
403   _totalSupply -= amount;
404
405   emit Transfer(account, address(0), amount);
406
```

## SWC-101 | ARITHMETIC OPERATION "-=" DISCOVERED

LINE 403

### low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

### Source File

- RCG.sol

### Locations

```
402  _balances[account] = accountBalance - amount;  
403  _totalSupply -= amount;  
404  
405  emit Transfer(account, address(0), amount);  
406  }  
407
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 521

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
520  if(basePercent==0) return 0;
521  uint256 c = value+basePercent;
522  uint256 d = c-1;
523  uint256 roundValue = d/basePercent*basePercent;
524  uint256 cutValue = roundValue*basePercent/10000;
525
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 522

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
521 uint256 c = value+basePercent;  
522 uint256 d = c-1;  
523 uint256 roundValue = d/basePercent*basePercent;  
524 uint256 cutValue = roundValue*basePercent/10000;  
525 return cutValue;  
526
```

## SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 523

### low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

### Source File

- RCG.sol

### Locations

```
522  uint256 d = c-1;
523  uint256 roundValue = d/basePercent*basePercent;
524  uint256 cutValue = roundValue*basePercent/10000;
525  return cutValue;
526  }
527
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 523

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
522  uint256 d = c-1;
523  uint256 roundValue = d/basePercent*basePercent;
524  uint256 cutValue = roundValue*basePercent/10000;
525  return cutValue;
526  }
527
```



# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 524

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
523 uint256 roundValue = d/basePercent*basePercent;  
524 uint256 cutValue = roundValue*basePercent/10000;  
525 return cutValue;  
526 }  
527  
528
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 524

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
523  uint256 roundValue = d/basePercent*basePercent;  
524  uint256 cutValue = roundValue*basePercent/10000;  
525  return cutValue;  
526  }  
527  
528
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 533

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
532 uint256 tokensToBurn = cut(value);
533 uint256 tokensToTransfer = value-tokensToBurn;
534
535 _balances[msg.sender] = _balances[msg.sender]-value;
536 _balances[to] = _balances[to]+tokensToTransfer;
537
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 535

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
534
535  _balances[msg.sender] = _balances[msg.sender]-value;
536  _balances[to] = _balances[to]+tokensToTransfer;
537  _balances[beneficial] = _balances[beneficial]+tokensToBurn;
538
539
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 536

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
535  _balances[msg.sender] = _balances[msg.sender]-value;
536  _balances[to] = _balances[to]+tokensToTransfer;
537  _balances[beneficial] = _balances[beneficial]+tokensToBurn;
538
539  emit Transfer(msg.sender, to, tokensToTransfer);
540
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 537

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
536  _balances[to] = _balances[to]+tokensToTransfer;  
537  _balances[beneficial] = _balances[beneficial]+tokensToBurn;  
538  
539  emit Transfer(msg.sender, to, tokensToTransfer);  
540  emit Transfer(msg.sender, beneficial, tokensToBurn);  
541
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 559

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
558
559  _balances[from] = _balances[from]-value;
560
561  uint256 tokensToBurn = cut(value);
562  uint256 tokensToTransfer = value-tokensToBurn;
563
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 562

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
561 uint256 tokensToBurn = cut(value);
562 uint256 tokensToTransfer = value-tokensToBurn;
563
564 _balances[to] = _balances[to]+tokensToTransfer;
565 _balances[beneficial] = _balances[beneficial]+tokensToBurn;
566
```



# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 564

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
563
564  _balances[to] = _balances[to]+tokensToTransfer;
565  _balances[beneficial] = _balances[beneficial]+tokensToBurn;
566
567  _allowed[from][msg.sender] = _allowed[from][msg.sender]-value;
568
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 565

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
564  _balances[to] = _balances[to]+tokensToTransfer;  
565  _balances[beneficial] = _balances[beneficial]+tokensToBurn;  
566  
567  _allowed[from][msg.sender] = _allowed[from][msg.sender]-value;  
568  
569
```

## SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 567

### low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

### Source File

- RCG.sol

### Locations

```
566
567   _allowed[from][msg.sender] = _allowed[from][msg.sender]-value;
568
569   emit Approval(from, msg.sender, _allowed[from][msg.sender]);
570   emit Transfer(from, to, tokensToTransfer);
571
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 579

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
578     require(spender != address(0), "Address cannot be 0x0");
579     _allowed[msg.sender][spender] = (_allowed[msg.sender][spender]+addedValue);
580     emit Approval(msg.sender, spender, _allowed[msg.sender][spender]);
581     return true;
582 }
583
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 587

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
586   require(spender != address(0), "Address cannot be 0x0");
587   _allowed[msg.sender][spender] = (_allowed[msg.sender][spender]-subtractedValue);
588   emit Approval(msg.sender, spender, _allowed[msg.sender][spender]);
589   return true;
590   }
591
```

## SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 595

### low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

### Source File

- RCG.sol

### Locations

```
594   require(amount != 0, "Amount cannot be 0");
595   _balances[account] = _balances[account]+amount;
596   emit Transfer(address(0), account, amount);
597   }
598
599
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 607

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
606   require(amount != 0, "Amount Cannot be 0");
607   _balances[account] = _balances[account]-amount;
608   _totalSupply = _totalSupply-amount;
609   emit Transfer(account, address(0), amount);
610   }
611
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 608

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
607  _balances[account] = _balances[account]-amount;  
608  _totalSupply = _totalSupply-amount;  
609  emit Transfer(account, address(0), amount);  
610  }  
611  
612
```



# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 617

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
616 function destroyFrom(address account, uint256 amount) external {
617     _allowed[account][msg.sender] = _allowed[account][msg.sender]-amount;
618     _destroy(account, amount);
619
620     emit Approval(account, msg.sender, _allowed[account][msg.sender]);
621 }
```

# SWC-101 | COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED

LINE 522

## low SEVERITY

This plugin produces issues to support false positive discovery within mythril.

## Source File

- RCG.sol

## Locations

```
521 uint256 c = value+basePercent;  
522 uint256 d = c-1;  
523 uint256 roundValue = d/basePercent*basePercent;  
524 uint256 cutValue = roundValue*basePercent/10000;  
525 return cutValue;  
526
```

## SWC-103 | A FLOATING PRAGMA IS SET.

LINE 16

### low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

### Source File

- RCG.sol

### Locations

```
15
16  pragma solidity ^0.8.0;
17
18  /**
19   * @dev Interface of the ERC20 standard as defined in the EIP.
20
```

## SWC-103 | A FLOATING PRAGMA IS SET.

LINE 93

### low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

### Source File

- RCG.sol

### Locations

```
92
93  pragma solidity ^0.8.0;
94
95  /*
96   * @dev Provides information about the current execution context, including the
97
```

## SWC-103 | A FLOATING PRAGMA IS SET.

LINE 117

### low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

### Source File

- RCG.sol

### Locations

```
116
117  pragma solidity ^0.8.0;
118
119
120  /**
121
```

## SWC-103 | A FLOATING PRAGMA IS SET.

LINE 144

### low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

### Source File

- RCG.sol

### Locations

```
143
144  pragma solidity ^0.8.0;
145
146
147
148
```

## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 490

### low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "\_totalSupply" is internal. Other possible visibility settings are public and private.

### Source File

- RCG.sol

### Locations

```
489 string public constant tokenSymbol = "RCG";
490 uint256 _totalSupply = 0;
491 uint256 public basePercent = 0;
492
493 constructor(address _owner, uint256 amount) ERC20(tokenName, tokenSymbol)
Owned(_owner) {
494
```

# DISCLAIMER

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This is a limited report on our findings based on our analysis, in accordance with good industry practice as of the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn’t say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

This report should not be used in any way to make decisions around investment or involvement with any particular project. This report in no way provides investment advice, nor should be leveraged as investment advice of any sort. This report represents an extensive assessing process intending to help our customers increase the quality of their code while reducing the high level of risk presented by cryptographic tokens and blockchain technology.

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## ABOUT US

Sysfixed is a blockchain security certification organization established in 2021 with the objective to provide smart contract security services and verify their correctness in blockchain-based protocols. Sysfixed automatically scans for security vulnerabilities in Ethereum and other EVM-based blockchain smart contracts. Sysfixed a comprehensive range of analysis techniques—including static analysis, dynamic analysis, and symbolic execution—can accurately detect security vulnerabilities to provide an in-depth analysis report. With a vibrant ecosystem of world-class integration partners that amplify developer productivity, Sysfixed can be utilized in all phases of your project's lifecycle. Our team of security experts is dedicated to the research and improvement of our tools and techniques used to fortify your code.